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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, Editor.

AUGUST---OUR MEDICINAL HERBS.

ALL the ancient customs of herb-gathering seem to be falling into neglect. The simpler, whose labors were so valuable to a distant by-gone generation, has become as rare as a hermit; her labors are now appreciated only by a few; and those few are such as have not kept pace with the community's progress in knowledge. There was a time when the simpler was one of the most important personages in any village neighborhood. The majority of the people in the village and the country around depended on her labors and her collections for the medicines which were to save them from disease, restore them to health, or enlighten them to understand the value of chemical manipulations, and the superior efficacy of those drugs which had been prepared under the direction of a learned chemist or physician. Nature was supposed to be wiser than the apothecary; but it was beyond the comprehension of these simple-minded people, to understand, that it was not nature, after all, who was prescribing to them; but that, on the contrary, it was they who were prescribing to themselves.

Nature produces certain medicinal herbs: but she never yet revealed to any one the uses for which they were designed. All this must be learned by investigation and experiment; and he who pulls up a weed from his garden and administers a decoction of it to himself or to a patient is no more under the guidance of Nature in his practice, than one who prepares his medicines with a pestle and mortar, from the chemicals of the apothecary.

But our present object is not to decry the use of our native or domestic medicinal herbs, but to say a few words upon their real value, and to give a few hints concerning them which may be instructive to those who are not acquainted with them. There are many valuable medicinal plants, both in our fields and in our gardens; but they are valuable rather as cordials, restoratives and anodynes, than as specifics for the cure of disease. The cure of real disease should always be left to a physician, who, being entirely devoted to the study and practice of the healing art, must necessarily, if he possess common power of mind, understand it better than the wisest man belonging to other trades and occupations. A wise physician always consults a farmer, when he wants advice concerning the raising of his animals or his crops; and he must be a stupid farmer, who should imagine that on this account he knew more than the physician about the cure of disease. In our opinion, Nature has very kindly furnished her creatures with these simples, which are procured from the field, that we may safely resort to them, when we need a gentle restorative, but are not sick enough to require a physician. We may be suffering from too much fatigue, or from exposure to heat or chills, and we may require a simple cordial or a sweating draught; and in these plain cases the herbs of the field or garden may furnish an agreeable and a sufficient remedy. The experience of the simpler may then be used with advantage; but to consult her in cases of decided disease would be like asking advice of the builder of a wigwam for planning and constructing a modern dwelling-house.

It is curious to note the classification of these herbs which was made by our ancestors, in the

mother country, two or three centuries ago, at a time when the chemical science was hardly known, and physicians themselves were obliged to use these simples as their only remedies. We will, for the amusement of the reader, copy this classification. It will be perceived that all the herbs are arranged either in fours or fives. These were:

Four greater Carminative Hot Seeds: Anise, Caraway, Cummin, Fennel.
Four lesser Hot Seeds: Bishop's Weed, Stone-parsley, Smallage, Wild Carrot.
Four Cold Seeds: Cucumber, Gourd, Melon, Watermelon.
Four lesser Cold Seeds: Endive, Lettuce, Purslane, Succory.
Five Opening Roots: Asparagus, Butcher's Broom, Fennel, Parsley and Smallage.
Five lesser Opening Roots: Caper, Dandelion, Eryngo, Madder, Rest-harrow.
Five Emollient Herbs: Beet, Mallow, Marsh Mallow, French Mercury and Violet.
Five Capillary Herbs: Harts-Tongue, Black, White and Golden Maiden-hair and Spleenwort.
Four Sudorific Woods: Guiacum, Perfumed Cherry, Sarsaparilla and Sassafras.
Four Cordial Flowers: Borage, Bugloss, Roses and Violets.
Four Carminative Flowers: Camomile, Dill, Feverfew, and Melilot.
Four Resolvent Meals: Barley, Bean, Linseed and Rye.

We must confess that we read these things with some respect, though their peculiarity excites a smile. There was more ingenuity than truth or philosophy, in conforming the numbers of these seeds and herbs invariably to *four* or *five;* since we know that each list may not only be doubled but extended to an indefinite number. Each one of these plants has really the virtues assigned it; and this formality of classification seemed not only to render the table more attractive, but to fix it more indelibly in the mind.

All cordial herbs, condiments and correctives come properly under the head of medicines; and though we may use them every day and while in health, they are still medicines, and nothing else. Such it is said are tea and coffee, and such are the hot and the sweet spices which we use with our food. Wines and spirits are medicines, and we have often been amused at the self-satisfied remark which we sometimes hear from the lips of an habitual guzzler of alcholic liquors—that *he never takes medicine!*

People of Europe and America have for many years employed themselves in discovering some plant which can be used as a substitute for tea, with equally good effects. It may not be out of place, in this essay, to name a few of these plants which have been the most generally used as substitutes for the China tea.

The most preminent of these substitutes is the Jersey tea, *(Canothus Americana)* which was extensively used by our people during the Revolution. It is a small shrub, very common in our dry, wooded pastures, covered almost entirely in June with bunches of exceedingly delicate white flowers. The leaves were the parts of the plant which were used; but we have never ascertained precisely the nature of its effects upon the human system. We have reason to suppose, however, that they were not disagreeable or injurious. Among other substitutes may be named the common Agrimony; the Sweet Scented Vernal grass; the Willow herb; the Partridge berry leaves; the Labrador tea, *(Ledum latifolium;)* the Oswego tea, *(Monarda kalmiana;)* the Syringa; the Prinos glaber; the Consumption flower, *(Pyrola rotundifolia;)* the Sweet Briar; the Swamp Rose; the Sweet Golden Rod, *(Solidago odora;)* the Black Currant; the common Strawberry; and about twenty other plants, native and exotic. The leaves which have been found in the possession of the manufacturers of China tea are those of the Sloe tree; the Ash tree; the Elder bush and White Thorn. They are described as having been boiled, in some instances, with logwood, or scalded, then rolled up and dried, the green bloom being given to them by Dutch Pink.

The Germans use the leaves of the common Strawberry as a substitute for Green tea. The leaves are gathered in the spring, while they are young, and only the smallest and cleanest leaves are selected, as they are not to be washed. They are dried in the shade, and the leaves, after being deprived of their stems, and warmed over the fire, are rolled up in the hand, while they remain flexible, and then dried again. They are then fit for use, and on being steeped in the same manner as the China Green tea, it is hardly possible to detect the difference. Probably we should soon experience the want of that invigorating influence from this preparation which proceeds from the genuine tea leaf. The leaf, however, of the *Ledum latifolium*, or Labrador tea, is said to possess a grateful aromatic bitter, and is highly salutary and invigorating. This plant might easily be cultivated, and grows best in poor, light soils. Were any person to discover a plant which is easy of cultivation, and production, and which possesses all the good qualities of the China plant, without any injurious qualities, it would be a fortune to him.

The object of our present remarks is not, however, to recommend any search after this "philosopher's stone," but simply to advise a more general attention to the study of our common medicinal herbs; in order to be able readily to distinguish those which are safe and wholesome from those which are injurious or poisonous.

We have no great faith in the utility of these herbs for the cure of disease; but for many simple purposes they are highly valuable, and the habit of paying attention to them, leads to the accurate observation of plants, and requires a preliminary knowledge of botany, which ought alwayt to be understood by the tiller of the soil.

☞ It is now certain that the grain crop of the West, about to be gathered, will be one of the most abundant ever known.

NEW GRASS.

BY JOHN JAMES PIOTT.

Along the sultry city street
Faint subtle breaths of fragrance meet
Me, wandering unaware,
(In April warmth, while yet the sun
For Spring no constant place has won)
From many a vacant square.

Whoever reads these lines has felt
That breath whose long-lost perfumes melt
The spirit—newly found;
While the sweet banished families
Of earth's forgotten sympathies
Rise from the sweating ground.

It is the subtle breath of grass;
And as I pause, or lingering pass,
With half shut eyes, behold!
Bright from old baptisms of dew
Fresh meadows burst upon my view,
And now becomes the old!

Old longings (Pleasure kissing Pain,)
Old visions visit me again—
Life's quiet deeps are stirred;
The fountain-heads of memory flow
Through channels dry so long ago,
With music long unheard.

I think of pastures, evermore
Greener than any hour before,
Where cattle wander slow,
Large-uddered in the sun, or chew
The cud content in shadows new,
Or, shadows, homeward low.

I dream of prairies dear to me;
Afar in town I seem to see
Their widening miles arise,
Where, like the butterfly anear,
Far off in sunny mist the deer,
That seems no larger, flies.

Thy rural lanes, Ohio, come
Back to me, grateful with the hum
Of every thing that stirs;
Dear places, sadden'd by the years,
Lost to my sight send sudden tears,
Their secret messengers.

I think of paths aswarm with wings
Of bird and bee—all lovely things
From sun or sunny clod;
Of playgrounds where the children play,
And fear not Time will come to-day,
And feel the warming sod.

New grass: it grows by cottage doors,
In orchards hush'd with bloom, by shores
Of streams that flow as green,
On hillslopes white with tents or sheep,
And where the sacred mosses keep
The holy dead unseen.

It grows o'er distant graves I know—
Sweet grass! above them greener grow,
And guard them tenderly!
My brother's not three summers green!
My sister's—new-made, only seen
Through far-off tears by me!

It grows on battle-fields—alas!
Old battle-fields are lost in grass;
New battles wait the new:
Hark, is it the living warmth I hear?
The cannon far or bee anear?
The bee and cannon too!

Washington, D. C., April, 1863. *Evening Transcript.*

TREE WASH.

In early spring we should look well to the cleaning of the trunks and larger branches of fruit trees. The old style of whitewashing is not fair treatment, for although its immediate effects may be beneficial, the interstices of the bark becomes filled in degree with the insoluble carbonate of lime, and this interferes materially with the after-functions of growth, lessening the *endosmose* and *exosmose* actions, and the bark soon becomes again as badly conditioned as before.

Tree washes should be soluble, so that they will eventually be removed by rains; thus oil soap, if free from rosin, may be used with advantage. Potash should never be used, as it frequently injures the cleaner and more delicate portions of the bark, and it changes so readily to a carbonate, as to be washed off before it decomposes the ova and cocoons of insects, lichens, mosses, etc., and it will not remove the scaly insects from the surface of pear trees, unless used at so great a strength as to injure the surface of the bark itself.

The soda tree wash we have so frequently recommended, is preferable to all others, and may be thus prepared:—Heat sal soda red hot in an iron vessel; to do this the vessel should be imbedded in, not over, a hard coal fire; this will drive off the water and carbonic acid which it contains, rendering the soda caustic. One pound of this caustic soda, added to one gallon of water, may be aplied to the trunks and larger branches of trees without injuring them. It will remove the scaly insects from the bark of dwarf pear trees. Applying the wash one day, rub such as have this insect upon them, the next day, with a woolen cloth, and the barks will be perfectly clear. This wash may be applied to all trees with a mop or brush, and if again applied at mid-summer to the larger portions, trunk, etc., the trees will be materially benefited. Where a portion only of the trunk of a plum tree is cleansed by this wash, it will increase in diameter more than the parts above and below the washed portions. This wash is worth all it costs as manure; it necessarily will find its way to the soil by the action of rains, dews, &c.—*Working Farmer.*

HOW TO MAKE BREACHY CATTLE.

We are too apt to underrate the intelligence of the domestic animals under our charge; and yet a moment's reflection should teach every farmer that cows, horses, sheep and pigs, are very apt pupils; and most farmers or farmers' boys, are quite proficient in teaching them to do mischief. Thus we find many persons, when turning stock into or out of pasture, instead of letting down the bars, leave two or three of the lower rails in their place; and then, by shouting or beating, perhaps, force the animals to leap over. This is capital training, the results of which are seen in the after disposition of animals to try their powers of jumping, where a top rail happens to be off, and this accomplished, to set all fences at defiance, and make a descent upon the corn or grain field, as their inclination, ability, or hunger, may prompt them. Another good lesson is to open a gate but a little way, and then, as in the case of the bars, force the cattle forward, and by threats and blows, compel them to pass through. The result of this teaching is shown in the determined spirit manifested by some cattle to make a forcible entry into the stable, yards, and fields.—*Exchange.*

SALT NOT A PRESERVATIVE OF POSTS.—A correspondent of the *Rural New-Yorker* gives his experience as follows:

Thirty-eight years ago I selected thirty chestnut posts of equal size. Half of the number I bored with an inch auger just at the top of the ground, slopingly, eight inches deep, filled them with salt, and plugged them up. The first post set was salted, next not salted, and so until all were set. The result was the posts all failed alike, proving to me salting was lost labor.

LETTER FROM MR. BROWN.

Warwick, R. I., June 16, 1863.

Narraganset Bay—Population of Warwick—Its Soil and Vegetable Growth—Black Walnuts—Grapes—Shrubs and Flowers—Hauling the Seine—Sharks—Dog Fish—Menhaden Fish for Manure—Manner of Using them—How Composted for Top-dressing—North Kingston—The Chadsey Farm—Great Rye Crop—Seeds—The Ives Farm—Oaks and Locust—The Waterman Farm—Fine Jersey Cattle and South Down Sheep—The Farm of Thomas J. Hill—Reflections and Conclusions.

GENTLEMEN:—As I suggested in my first letter from "*The Farm*," I have come forth to "learn how other people live and prosper," and to collect facts, if I can, that will be valuable to the numerous readers of the *New England Farmer*. Your paper is *not* a stranger, I find, wherever I go.

Warwick, from whence I date, is a large town, bounded on the east by Narraganset Bay, and frequently penetrated by numerous inlets from that broad and beautiful sheet of water. In these, a variety of fish and clams are procured, and some of them, the *Menhaden*, for instance, in very large quantities. At the head of one of these bays, "*Co-we-set*," near the little village of Apponaug, and two miles from East Greenwich, I have made my halting place with some excellent relatives, and from whence I shall ramble as fancy or facts invite me.

The population of *Warwick* is now about 10,000 souls, and is largely engaged in the manufacturing of various kinds of articles. One can scarcely pass over a mile of any part of the town without finding "a factory" of some kind. Where water-power can be obtained it is employed, but if the *stream* is not there, *steam* is, and the wheels fly merrily everywhere. The soil is of a peculiar character. It is a rich, sandy loam, sometimes abounding with stones, but more frequently without any, and having a dark and slightly reddish appearance. The growth of wood includes the Cedar, Walnut, White and Yellow Oak, Beech, Maple, White and Red—I did not observe the Rock or Sugar Maple—the Locust, Yellow Pine, White and Brown Ash, Birch, and Black Walnut. The latter is indigenous, and splendid specimens of this splendid tree sometimes lined the roadside, and lent us their grateful shade as we rode along. I occasionally saw one that had no limbs for 15 or 20 feet from the ground, and then spread out its branches over a diameter of 50 or 60 feet. Climbing plants, shrubbery and grape vines flourish exceedingly in this soil, and the grape especially so. I found it in the woods, on the roadside, and in the grounds of nearly every house I have visited. The people train the Isabella and Catawba over extensive trellises, under which they have drive ways to the carriage-house, and, in one or two cases, sufficiently spacious to pass under with an *ox load of hay*, on the way to the barn! The general cultivation of the grape about the dwellings, together with a pleasant variety of shrubs and flowers, gives the country a most thrifty and inviting appearance to the traveller as he passes along. Even before he meets and converses with the people, he is led to believe them cultivated and intelligent, and a more intimate acquaintance does not dispel his early impressions,—at least, not in my case. The *Concord Grape*, which is considered the best out-door grape we have, is not yet generally introduced into this section. I hope it may find its way among them the coming autumn, for I am confident it will be a great acquisition to their present varieties. I have already sent some among them, and shall continue to do so, hereafter.

The soil is peculiar, I have said. Upon rubbing it between the fingers it has none of that sharp grit that our sandy soils possess, although it has the appearance of our sandy soils to the eye, except in color. It feels soft and loamy, or like soap. Even on the rocky fields, it retains this characteristic; consequently, the finest seeds come in it without difficulty, and I was told that frost rarely disturbs it so as to throw walls or fences from their level. The appearance of the crops, all along my way, where skilful cultivation was observed, gave ample testimony of the excellence of the soil.

I have passed over, more or less, three of the five counties of the State, Providence, Kent and Washington. These lie on the western side of the Bay, while Bristol and Newport are on the eastern side. All along the shores of the Narraganset, and for several miles into the interior, the farmers use large quantities of fish as a dressing for their lands. One of my morning rambles was to the shore where the fishermen were engaged in drawing the seine. This is taken into a large boat and carried a mile or two from the shore and then spread from one boat to another, sweeping over a large extent of the bay, and then gradually brought ashore by the boatmen. In "the haul" which I saw, there was not a large amount of small fish, but the novelty of the matter was greatly increased for me by the presence of two *sharks*, each between 3 to 4 feet long, and two *dog-fish*, of about the same size. When the sharks showed their tails and peculiarly ugly eyes, and announced their objection to landing by some energetic gyrations and snapping of their triple-armed jaws, there was a lively "skedaddling" among the fishermen and the bare-footed boys! A few shad were included in the draught, some tautog, one lobster, scallops, crabs, and the remainder mostly Menhaden. The latter are the fish principally relied upon as a manure. They are measured in a half-barrel, as thrown from the net and at once loaded into carts or wagons or left in heaps upon the beach, to be taken by the parties who have engaged them. If the planting season is not over, they are carted at once to the field, and one fish, weighing from one to two pounds, is dropt into

the hill and the corn planted by it and immediately covered. In some cases two, or even more are used, according to the quality of the soil or the means of the planter. My friend, by my side, intends to put in 20 acres of corn in this manner, next year.

The general impression seems to be that fish thus used is not a *durable* fertilizer,—that all its power is exhausted the first year. Such is probably the fact, as they use it. But if the same *money value* in fish were put upon the land as is usually applied to it in farm manure, I think there would be no reason to think that the fish is not only a powerful but a permanent fertilizer. Let us see,—

If the hills are 3½×3 feet apart, there will be 4,148 hills on an acre. There are about 200 fish in a barrel. It would require, therefore, a little more than 20 barrels to dress one acre. At the beach, they can be bought for 18 cents a barrel—perhaps less in large quantities. If we call them 20 cents a barrel on the field, the manure, as usually applied, will cost $3,60 per acre, while the barn-yard manure would average $20 to $25 per acre. I hope some of the intelligent farmers whom I have met, will give you the result of their experiments in this matter.

When the fish is intended as a topdressing, or when coming after the planting season is over, it is converted into a fine and exceedingly strong manure by the following process: A trench is dug on the edge of the field where the manure is to be applied, of length and width according to the quantity of fish to be used, and they are pitched into it and a little soil thrown over them. If the weather is warm, in three or four days the fish will be changed into a mass of living maggots, and they will commence marching off in numbers whose name is legion! As soon as this march commences, men are employed in throwing the soil over them before they fairly leave the ditch, and so continue until the last column is arrested and overwhelmed, by a process as certainly fatal as was the storm of ashes over the doomed cities of Herculaneum and Pompeii. The mass then becomes fine, quite dark colored, and the offensive gases are so much absorbed by the loam as to render the whole a safe and convenient manure. In this form it is portable, easily applied as a topdressing, or in any other way, and when liberally spread, is quite permanent in its effects.

At North Kingston, on the farm of Capt. A. P. CHADSEY, Provost Marshal of that District, I found rye growing on land adjoining that on which they grew 42 bushels per acre last year. Mr. CHADSEY, the elder, now past 82 years of age, and still hale and hearty, accompanied me on the ramble and gave me the facts which I repeat. They raised on the farm last year *two thousand* pounds of onion seed, about 1500 of carrot seed, and smaller quantities of various other seeds, which were sold to the Shakers in Connecticut. This farm lies near the shores of the bay, and the soil is of the most excellent character. Many oasis-like pieces, lying in the very midst of the salt marsh, were cultivated, and now have on them the most flourishing crops. The rye mentioned grew on one of them.

Driving leisurely homeward I turned into a fine avenue, a mile and a half long, on the IVES farm, which occupies a point of land running into the bay. This avenue is sufficiently wide to drive three carriages abreast, fenced each side with spruce boards, four rails high and each six inches wide. Each side of the avenue is set with oak, elm, ash or maple trees, not in a straight line, but every other tree set in about twelve inches towards the fence, making two instead of one line, and all dug about and mulched. Each tree is protected by two six-inch boards coming to a point next the road, resting on a small post and nailed at the other end to the fence. On this farm I think I saw at least a hundred acres of red clover in full bloom, and three or four times as much more in other grasses. The extensive pasturage had all been reclaimed and cultivated, and teemed with grass as did the field. I also saw fine orcharding, stock of various kinds, and everything in order. Not a gap in the stone wall, no weeds in the grounds or roadside, and no gullies or other defects to mar the beauty of the fields. On one piece, containing about 15 acres, I saw rye which must average 30 bushels per acre, at least. In the midst of this field were lofty oaks scattered here and there, and tall, straight locusts in full bloom, giving the whole a charming aspect. This feature in the farming of Rhode Island is as beautiful as it is peculiar. The farmers say that the locusts do not injure the crops in the midst of which they stand, and the rye, and other grain fields which I looked at, did not seem to be affected by them. They give the scenery the most inviting aspect, especially in a hot and dusty day. This farm contains about 1300 acres, and has upon it several elegant mansions, the summer residences of different branches of the Ives family. The other buildings are numerous and all kept in complete order. The proprietors reside in Providence in the winter.

The adjoining farm on the south, or south-west, belongs to Mr. RICHARD WATERMAN. Here I saw some of the finest Jersey heifers and cows that I have ever seen, and a fine flock of South Down sheep. Here, also, every portion of the farm and buildings was a pattern of neatness and system, and indicated skill in the direction of all its affairs. My stay upon it was too limited to look into the fields and orchards.

On the farm of Mr. THOMAS J. HILL, a business man of Providence, I saw some fine examples of reclaiming, followed by wheat crops that will give 40 bushels per acre, and corn, grass, and other crops in proportion. One field, perhaps of 20 acres, was partially surrounded by a wall four feet across at the bottom, two feet at the top, faced on both sides, and level, the ground being made nearly so before the wall was built. The foundation of the wall, I was informed, was three feet deep. The land abounds with flat stones, and some of the cap stones of the wall were six feet in length. He intends to continue it round the entire field. It is about five feet high.

On the *eleventh*, I saw a large party *gathering peas* in the field, and numerous clover fields were in full bloom, none of which had I seen at home a day or two before. The climate is 10 or 15 days earlier, I think, than that north or west of Boston, and is greatly affected by the large body of water in Narraganset Bay, which sends its humid and warm air ashore.

After seeing this beautiful farming country, in the midst of markets, schools, churches, and from any portion of which one can go forth and reach some 20 or 30 cities in the course of 24 hours, I cannot conscientiously advise persons who are seeking to establish homes on farms to go to the West, or even into Virginia, when rebel raids have ceased, and sweet peace sits serenely again over our land. Settling in Rhode Island would not take one from New England customs and influences, while it would give him good markets in the neighboring cities or among the manufacturers, excellent land to cultivate, with rare facilities for securing manures, and a climate superior to that of a large portion of the rest of New England. At some future time I hope to visit the two eastern counties, and fish, shoot, and have a good time, as I have sometimes had many years since. In the meantime, I am, gentlemen,

Very truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

For the New England Farmer.

A CORN BARN---PRESERVING HAMS.

MR. EDITOR:—I find in your ever welcome and instructive journal, quite a number of plans in regard to a corn barn; I have not seen any mention made of a plan adopted by myself, to escape from rats and mice, which has proved effective for many years, and is very simple, and of scarce any expense. Erect the barn, no matter what dimensions, (which of course will depend upon the amount of crops,) upon posts, leaving a space between the ground and the floor of four feet. Cover the tops of the posts with tin, (or zinc is preferable,) a depth of six inches, and you will never be troubled with rats or mice, unless in a hurry you neglect, in leaving, to shut the door and remove the steps, or ladder, by which you enter.

I saw the other day, in some journal, a mode for preserving *hams*. It was to cover the meat side of the ham with strong whitewash. Now, that will keep away vermin sure, but I don't think it will improve, to say the least of it, the flavor of the ham. My method is, to inclose the ham in a bag of canvass, cotton, or old sail cloth, and then thoroughly whitewash the bags with two or three coats, drying between each application, and then suspend in an airy place, with the *hock* end down. I have taken hams thus prepared on voyages of thirty odd months, to the Pacific and back, and twenty-nine months on the coast of Africa, without losing a single one, save in manner and form, duly provided for by the statute in such case made and provided. J. C. R.

Fort Preble, June, 1863.

For the New England Farmer.

GOING TO MARKET.

"It costs nothing, but it goes a great ways," said some one, referring to the kind civilities of a thoroughly well-bred and polite person.

Do any of my lady readers remember their first experiment in "going to market?" Now, lest some one may misapprehend entirely my meaning by the term "going to market," lest some fair city lady may suppose I mean stepping into a city market, and ordering various nice little parcels sent to No. —, D—— Street, for dinner, I will at once explain. I mean simply this:

A country farmer's wife may decide that, for wise and sufficient reasons, she will go to the town or city with the "horse or wagon" and she will take upon herself the sole responsibility of disposing, to the best of her ability, of such articles as may be ready for sale; the products of the dairy, say.

"Well, what of that?" says one. "We know that women do so, but dear me, they are always such a coarse, countrified set, that it is quite shocking to be in a store when these market women come in, although I admit they are sometimes quite amusing, quite a study, like the garbage gatherers and fish women of Paris."

With becoming perseverance we decided one fine day in the month of —— that the next morning, circumstances permitting, should find us at an early hour on our way to the city of, —— "going to market," for the first time. If a military general has his misgivings when approaching the enemy to give battle, is it strange that we should have ours—two women approaching, for the first time, a strange place, on business new and untried? One consolation for us, nobody knows us in ——, and if we are "green," and those who patronize us are disposed to be uncivil or rude, because we, instead of our "better half," have come to market, we won't know them; they won't know us; "we'll grin and bear it." Is not there a comfortable feeling of independence in knowing no one, no one knowing you in a strange place? Did you ever feel it? If you have, you understand it.

With some little timidity, but we hope with becoming dignity, we inquire of the trader, in the first store we enter, if he would like some ——? A cautious glance assured us that one or two customers present, regarded us, not with contempt, but perhaps a little curiosity; of course, we knew we were somewhat verdant, and how could it be otherwise? But the pleasant face of the trader assured us that we should certainly meet with no

incivility here. We were reassured, by the greeting of a tall, rather rough, but honest looking man, who enters and salutes our trader thus, "Do you want some eggs?" "Yes." "Wal, tell you what, I always like to come in here; that's so, cause you always look so pleasant."

"Eh! good natured, is it?" says the pleasant voice behind the counter, as a slight gleam of satisfaction beamed from his eye. My friend and I exchanged glances, which interpreted, were, "We shan't be snubbed here."

How we traded, is our affair: we see no propriety in telling the reader further, but what we wish is simply to say, that, if "Love is the golden key that opens the human heart," why may we not call true politeness and civility the silver one?

We certainly must consider that feeling of the heart that prompts a stranger to extend to a stranger, even a little plain market woman, the various kind attentions needed, freely and delicately, true politeness. If this feeling pervades the heart, and is well rooted there, it will show itself, and not occasionally either. I doubt not, many who read this artiele, can recall instances where worthy and sensible persons have been rudely treated by store-keepers and clerks, whose far worthier fathers and mothers, working on the farm, were honestly toiling for an honest living, rudely treated, because—well, they came from the farm, to sell something.

To this class "our trader belongeth not."—From the time we entered his store with our boxes and budgets, our fears and misgivings, till he politely handed us into our wagon, with our empty boxes and budgets, minus our fears and misgivings, we received only the kindest attentions. Had we a thousand "market women" friends, whose husbands, sons, or brothers were "gone to war," or who for other reasons, had unmistakable evidence that it was their duty to "go to market," we would say to them, go and trade with Mr. ——, but not all at one time. Would there were more like him, and "may his shadow never be less." You see, Mr. Editor, that since I have been to market, although, my fingers are not exactly "all thumbs," yet my pen is a little stiff.

A. B. C.

REMARKS.—No matter about the "fingers" or "thumbs." Your letter is one of the most elegantly written ones that we have received for years past. You honor the world by your acts and the expression of your sentiments. Let fops and fools sneer, if they will, their "noses may come to the grindstone," when they least expect it, perhaps.

COST OF RAISING CORN IN ILLINOIS.—A Warren county correspondent of the *Prairie Farmer*, "J. D. P.," says:

The great staple crop of this section is corn, for which the soil is particularly well adapted. Corn, properly taken care of, does not generally cost over twelve cents per bushel when cribbed. Last year I raised over four thousand bushels, at a cost of nine or ten cents per bushel when cribbed with the husk on. Any person doubting this can have the figures of every item as charged in my farm account.

For the New England Farmer.

FEEDING CHICKENS.

DEAR FARMER:—As it is your province and pleasure to do good, I wish you to communicate to your readers the following way to feed chickens and to preserve their lives.

It is a mistake to feed young chickens pudding made of common fine meal. Pudding made of the common fine corn meal is too indigestible and cold for the thin and tender stomachs of the chickens. Chickens thus fed are early stunted, and linger along with an inactive and debilitated digestion. Hominy made into pudding is the best food for chickens until they are large enough to eat corn in the kernel. If you cannot get hominy, use two parts of boiled potatoes with the common fine meal.

Chickens often are seen to droop their wings, turn around and appear to almost fall backwards. In nine cases out of ten, lice on the top of the head of the chicken. When you see your chickens droop thus, and peep, and lay behind the brood, examine on the top of the head of the chicken, and you will find lice there, standing on their heads, eating directly to the seat of nervous organization.

The infallible remedy is tobacco juice, applied plentifully on the head of the chicken—but not in the eyes. I find chewing tobacco very useful in raising poultry, for I have not lost one chicken this year.

QUI NUNC.

June 13, 1863.

For the New England Farmer.

WHO ARE THE PATRIOTIC WOMEN?

MR. EDITOR:—As the haying season in New England approaches, it becomes a question of interest to the farmer how he is to secure his crop of hay, with the present scarcity of labor. Undoubtedly, a great deal will be done with the horse-mowers and horse-rakes, but then there is a vast amount of labor, both in the field and the barn, which cannot be accomplished by these labor-saving implements. There is the spreading and turning of the hay, the pitching it on the wagon and loading it there, then the pitching it off and stowing it away in the barn—surely, our hands will be full, and more than full, and who is to help us in this driving and exhausting labor?

Now it may seem to be going back to days long past—it may seem to be uncivil, if not uncivilized, to propose, as I do, that we call upon the women of the country to lend a hand in this emergency, to help harvest the crop, so valuable, so indispensable to the whole community. The young men are mostly away in the war—others will soon be call thither—they thus show their pluck and their patriotism—and the Lord be praised for it; but our young women have both patriotism and pluck, and are willing to do what their hands find to do to bring the country out of her trials. They often complain that there is not work enough for them to do; their zeal sometimes is in danger of outrunning their opportunities to do good. Now here is a field, wide, useful, healthful and honorable; will you, ye fair ones of New England, give us your aid out of doors in haying, at least the present season? It may harden your hands, brown your faces and disarrange your dresses; but just don a bloomer dress, or something of the sort, and go to work with a will

and we promise you kind treatment and the gratitude of warm hearts. You can render a service in this way hardly to be estimated in dollars and cents, but which will be appreciated by all intelligent farmers. We make the proposal in all sincerity, and we earnestly hope it may be accepted.

Danvers, June 4, 1863. I. L.

Remarks.—And so do we. A vast amount of good may accomplished without a single unpleasant result. The effort may soil the hands, but will not tarnish the reputation. Listen to the fair proposition, matron and maiden, abandon your hoops for hoes, for a season, and show the men of the country that you are not a whit behind them in any patriotic effort.

RE-ROOTING OF PEAR TREES ON QUINCE STOCK.

At a late meeting of the American Institute Farmer's Club, Mr. John G. Bergen made the following statement:

This spring, I had occasion to move twenty-five pear trees on quince, which I set five years ago, at two years old, budded low on the stock, so that it was easy to set them two to four inches below the junction. Upon about one-third of these trees, I found that there were plenty of quince roots, but none from the pear. About one-third had both pear and quince roots, and in some instances, when the pear roots were vigorous, the quince roots, though still in place, were dead or dying. Upon the other third, there were no quince roots left, the whole tree being sustained by the new roots formed from the pear. In one case, the tree was budded upon pear, and that had straight roots, reaching downward. On the trees where new pear roots had formed above the quince, they all appeared disposed to spread out horizontally. The trees still retaining quince roots are not as large as the others, and those with both pear and quince roots proved that the latter do not always die as soon as pear roots form.

Abortion in Cows.—Complaint of trouble in this respect has been quite frequent of late in agricultural papers. Among other causes, it has been suggested that it might be the result of infection by a diseased male. A correspondent of the Boston *Cultivator* combats this idea, and says:

There is a weed growing in some localities, which is fatal to a cow with calf. It does not always grow in one particular spot, but will spring up sometimes in one place, and again in another. I do not know the proper name for it, but it is known among old people and farmers by the name of "slink-weed." I once knew a herd of thirty cows all lose their calves in this way at one time; and although it was a great many years ago, nothing of the kind has since occurred on that farm. I have very recently known a case of abortion where the cause was said to be traced directly to the existence of this weed in the hay. I am not able to describe the weed, having never seen it myself; but it grows in my neighborhood, and is known by some of the people in this vicinity.

"CATCHING COLD."

A large number of fatal diseases result from taking cold, and often from such slight causes, apparently, as to appear incredible to many. But, although the causes are various, the result is the same, and arises from the violation of a single principle, to wit—cooling off too soon after exercise. Perhaps this may be more practically instructive if individual instances are named, which, in the opinion of those subsequently seeking advice in the various stages of consumption, were the causes of the great misfortune, premising that when a cold is once taken, marvellously slight causes serve to increase it for the first few days—causes which, under ordinary circumstances, even a moderately healthful system would have easily warded off.

A promising young teacher walked two miles for exercise, and on returning to his room, it being considered too late to light a fire, sat for half an hour reading a book, and before he knew it a chill passed over him. The next day he had spitting of blood, which was the beginning of the end.

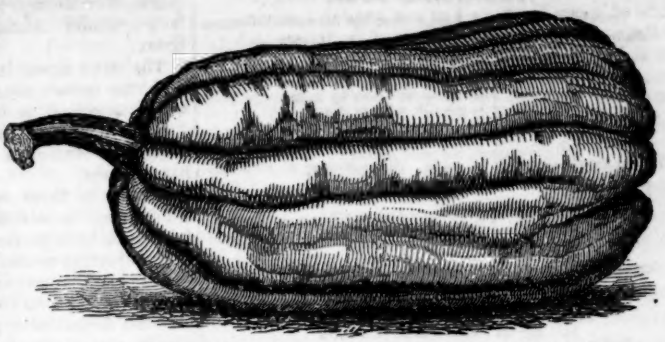
A mother sat sewing for her children to a late hour in the night, and noticing that the fire had gone out, she concluded to retire to bed at once; but thinking that she could "finish" in a few minutes, she forgot the passing time, until an hour more had passed, and she found herself "thoroughly chilled," and a month's illness followed to pay for that one hour.

A little cold taken after a public speech in Chicago, so "little" that no attention was paid to it for several days, culminated in the fatal illness of Stephen A. Douglas. It was a slight cold taken in midsummer, resulting in congestion of the lungs, that hurried Elizabeth Barrett Browning to the grave within a week. A vigorous young man laid down on an ice-chest on a warm summer's day, fell asleep, waked up in a chill, which ended in confirmed consumption, of which he died three years later. A man in robust health and in the prime of life, began the practice of a cold bath every morning, getting out of bed and standing with his bare feet on a zinc floor during the whole operation; his health soon declined, and ultimately his constitution was entirely undermined.

Many a cold, cough and consumption, are excited into action by pulling off the hat or overcoat as to men, and the bonnet and shawl as to women, immediately on entering the house in winter, after a walk. An interval of at least five or ten minutes should be allowed, for however warm or "close" the apartment may appear on first entering, it will seem much less so at the end of five minutes, if the outer garments remain as they were before entering. Any one who judiciously uses this observation, will find a multifold reward in the course of a lifetime.—*Hall's Journal of Health.*

☞ Wool-growing is now receiving much attention among the Kansas farmers. Large numbers of sheep have been sent into the State, a great portion of them from Missouri. The clip this year is good, and will yield a handsome profit. The expense of keeping sheep there is a trifle when compared with the cost of keeping them here.

He who loves only himself dislikes nothing so much as to be alone with the object of his affection.



Several years ago this squash was in high favor, and very justly too, we think, but since the introduction of the Hubbard squash, it has lost some of its notoriety.

In a note to us several years since, from the late lamented Dr. T. W. HARRIS, of Cambridge, he said:

"It is a *winter squash with a hard rind*, and is said to have been brought from the city of New York to Waltham, where some of the fruit was grown in the summer of 1849."

The Doctor adds that he had seen the same squash in Boston market, and was told that it came from the *West Indies*, and thinks it probable that it originated there. Nevertheless, it is perfectly adapted to our latitude and climate. The form is elongated, slightly depressed at each end. Ten-ribbed. Rind smooth ; with a few irregular elevations on it; harder than that of the crook-necked of the winter squash, but not woody, about as thick as press-paper, and of a dark cream or cheese color. Flesh one and one-fourth inches thick, deep yellow, very firm and fine-grained throughout. Seeds numerous, whitish, oblong.

The vines, leaves and blossoms do not differ essentially from those of the common winter pumpkin and winter squash. The above engraving is taken from Burr's "Field and Garden Vegetables of America."

FAIR OF THE UPPER CANADA AGRICULTURAL ASSOCIATION.—The June number of the *Canadian Horticulturist* contains the Prize List, &c., of the Eighteenth Exhibition of this Society, to be held in Kingston, Sept. 22d, 23d, 24th and 25th, 1863. Premiums to the amount of about $12,000 are offered on articles connected with agriculture, horticulture, manufactures and arts.

A RURAL SCENE.

We had a royal progress from Boston to Fontdale. Summer lay on the shining hills and scattered benedictions. Plenty smiled up from a thousand fertile fields. Patient oxen with their soft, deep eyes, trod heavily over mines of greater than Indian wealth. Kindly cows stood in the grateful shade of cathedral elms, and gave thanks to God, in their dumb, fumbling way. Motherly, sleepy, stupid sheep lay on the plains, little lambs rollicked out their short-lived youth around them, and no premonition floated over from the adjoining pea patch, nor any misgiving of approaching mutton marred their happy heyday. Straight through the piny forests, straight past the vocal orchards, right in among the robins, and jays, and the startled thrushes we dashed inexorable, and made harsh dissonance in the wild wood orchestra; but not for that was the music hushed, nor did one color fade. Brooks leaped in headlong chase down the furrowed sides of gray old rocks, and glided whispering beneath the sorrowful willows. Old trees renewed their youth in the slight, tenacious grasp of many a tremulous tendril, and leaping lightly above their topmost heights, vine laughed to vine, swaying dreamily in the summer air; and not a vine nor brook, nor hill nor forest, but sent up a sweet smelling incense to its Maker. Not an ox, or cow, or bird living its own dim life but lent its charm of unconscious grace to the great picture that unfolded itself, mile after mile, in every fresh loveliness to every unsated eye. Well might the morning stars sing together, and all the sons of God shout for joy, when first this grand and perfect world swung free from its moorings, flung out its spotless banner, and sailed majestically down the thronging skies. Yet, though God spoke once for the world to live, the miracle of creation is still incomplete. New every spring time, fresh every summer, the earth comes forth as a bride adorned for her husband. Not only in the gray dawn of our history, but now in the full brightness of its noonday, may we hear the voice of the Lord walking in the garden. I look out on the grey, degraded fields left naked of the kindly snow, and inwardly ask ; can these dry bones live again? And while the question is yet trembling on my lips, lo! a Spirit breathes upon the earth, and beauty thrills into bloom. Who shall lack faith in man's redemption when every year on earth is redeemed by unseen hands, and death is lost in resurrection?—*Gail Hamilton.*

CITY OF PROVIDENCE.—During our late excursion, we passed a day in the beautiful, enterprising and wealthy city of Providence, and think we never saw so many fine estates in a single day before, as we saw in and about that city. The climate and soil evidently greatly aid the efforts of the gardener, while the best mechanical skill and efforts of art are expended upon the tasteful and costly mansions everywhere to be seen. It is said that Providence is the most wealthy city, according to its population, of any in the Union. We found its people as hospitable and intelligent as their city is rich and beautiful. Its manufactures are numerous and in a prospering condition.

THE GUIDE POST.

Translated by Bayard Taylor from the Allemannic-German dialect of John Peter Hebel, for the *Atlantic Monthly*.

D'ye know the road to th' bar'l of flour?
At break o'day let down the bars,
And plough your wheat field hour by hour
Till sundown—yes, till shine of stars.

You peg away the live-long day,
Nor loaf about, nor gape around;
And that's the road to the thrashin' floor,
And into the kitchen, I'll be bound!

D'ye know the road where dollars are?
Follow the red cents here and there,
For if a man leaves them, I guess
He won't find dollars anywhere.

D'ye know the road to Sunday's rest?
Jist d n't of week days be afeered;
In field and workshop do y'r best,
And Sunday comes itself, I've heered.

On Saturday it's not fur off,
And brings a basketful o' cheer—
A roast, and lots of garden stuff,
And, like as not, a jug of beer.

D'ye know the road to poverty?
Turn in at any tavern sign;
Turn in—it's temptin' as can be,
There's bran'-new cards and liquor fine.

In the last tavern there's a sack,
And when the cash y'r pocket quits,
Jist hand the wallet on y'r back—
You vagabond! see how it fits!

D'ye know what road to honor leads?
And good old age?—a lovely sight!
By way o' temperance, honest deeds,
And tryin' to do y'r dooty right.

And when the road forks airy side,
And you're in doubt which one it is,
Stand still and let y'r conscience guide;
Thank God, it can't lead much amiss!

And now, the road to church-yard gate
You needn't ask. Go anywhere!
For whether roundabout or straight,
All roads at last will bring you there.

Go, fearin' God, but lovin' more!
I've tried to be an honest guide,—
You'll find the grave has got a door,
And somethin' for you t'other side.

A STOCK FARM IN MAINE.

The editor of the Bangor (Me.) *Whig and Courier* has recently paid a visit to the large stock farm of Mr. Thomas S. Lang, at Vassalboro', Me., and publishes a description of what he calls "the finest stud of horses in New England, and the best yard of thoroughbred Durham cattle in Maine." The stud embraces sixty-one horses, old and young, of every popular breed, including stock from Ethan Allen, George M. Patchen, Sherman, Black Hawk, Trotting Childers, Hiram Drew, and other celebrities on the trotting course. The writer says there is but one description of horse which Mr. Lang has not got, and that is "a poor one." Most of the animals are very valuable, and several of them are, individually, worth what many would esteem an extraordinary price. The writer specifies as follows:

"Foremost in the list we must notice the entire horse, General Knox, well known to every horse-dealer in New England. General Knox is seven years old, is a Sherman Black Hawk, from a Hamiltonian mother, never was sick or lame a moment, is gentle as a kitten, and the most perfect animal we ever looked upon. We believe he will yet make the best time on record. He has never been beaten in a race—*he never will be.*

The entire horse, Trenton, by G. M. Patchen, from a French mare purchased on the Bonaparte estate, New Jersey, and raised by Prince Murat, is a splendid animal, but hardly up to General Knox.

The Davis horse, lately owned in Bradford, is familiar to horse fanciers in this vicinity, and is a very fine animal, and a fast traveller.

General Wayne, by Ethan Allen from a thorough bred mother, is also a splendid animal, and hard to beat.

One of the finest animals is the trotting gelding 'Cloudman,' powerfully and perfectly built, and handsome as a picture. He will make his mark in the sporting world."

Among the remainder are horses "of every conceivable style, from the little and graceful three-year-old to the staid old 1350 pounds Pennsylvania Dutchman who jogs off with a fabulous load without winking."

The Durham (or short-horn) cattle of Mr. Lang are represented to include some of the finest animals ever imported into this country, and to embrace the famous animals brought from England, by Thorne, of New York, at great expense, as they represent the stocks of the best English breeders, and are of unquestioned purity. The writer describes the young stock as very promising, and speaks of the breeding cattle as follows:

"Among the stock purchased of Thorne are cows Lalla Rookh, Bianca, Aurora, Peri and Victoria—of these Lalla Rookh, perhaps, stands foremost. She was bred by Col. Townley, of Townley Park, Burnley, England. She won the first prize of $10 at the great Yorkshire show in 1851, and the first prize of $10 at the Royal North Lancashire Society's show, in the same year. She beat, upon both these occasions, a heifer shown in the same class named 'Vestris.' The next year, 'Lalla Rookh' being in this country, 'Vestris' carried all the prizes; showing that 'Lalla Rookh's' equal was not left in England. Her first cost was $2000. She was also winner of the first prize as best cow at the United States Show, at Philadelphia, in 1856. She was one of the herd that won the first prize as the best herd of Short Horns, and also the first prize as best herd of any breed at the same show. Since she was brought to this country she has had five calves. Four of them have been sold for $1000 each, and the fifth is now owned by Mr. Thorne, and cannot be bought.

Mr. Lang, (the writer adds,) is paying great attention to the science of breeding cattle and horses. With him it is a deep and earnest study, and he enters into it with an energy and determination, which cannot fail to be productive of the most beneficial results.

If the man who makes two blades of grass grow where but one grew before, is a benefactor of his race, how much more is he a benefactor who invests large sums of money in bringing valuable horses and cattle into the State. The improved blood is circulated in all directions, adding thousands of dollars to the value of stock, and its beneficial effects will be felt for years and years."

Mr. Lang's attention is not entirely occupied in raising improved horse and dairy stock, although, from the list of his possessions, in these respects, his occupation and care would be sufficient for any common man. He is agent for the North Vassalboro' Woolen Manufacturing Company, which employs 350 hands, pays over $8000 per month in wages, and consumes at present at the

rate of 800,000 pounds of wool per annum, and is preparing to use much more. The manufacture is cloth, and the wool, which is principally from South America, is unbaled, cleaned, sorted, carded, spun and woven, and the cloth dyed and dressed in the most systematic manner. The *Whig*, as a sample of the energy of Mr. Lang, states that "last year the company decided to increase and improve their works one-half. In twelve weeks from the time the order was communicated to Mr. Lang, he had the building ready to receive the machinery. In doing this, he ordered machinery, established a brick yard, and made all the brick necessary for the increase. The new machinery is now being rapidly put in order, the old mills running on extra time, old buildings being removed, all under his directions, and an amount of labor is daily performed which would drive a man of ordinary energy and will distracted." The late Col. Samuel Jaques, whose tastes were in many respects of kin with those of Mr. Lang, once insisted that unless he could have as an associate on a committee a certain eminent Massachusetts agriculturist, he could not think of acting as a member, for the reason that the gentleman referred to, could "do the work of any other ten men." We think, on the same principle, that Mr. Lang would be an excellent man to have on a committee.

Having recently visited Mr. Lang's place, we can fully endorse all that the *Whig* says of his stock and manufacturing establishment, as well as of his gentlemanly attentions and hospitality.—*Boston Journal.*

THE POTATO ROT.—As Prof. Johnson, of Yale College, has publicly endorsed the fungus theory, announced by some of the German botanists, perhaps some of our readers will like to compare their own theories and observations with the following statement:

These investigators have not merely looked at the blighted leaves and seen the fungus there, but have watched the fungus, as it rapidly sends out its branches into the still healthy portions of the leaf, which it literally devours—appropriating the juices to its own nourishment, and leaving behind a disorganized and decayed mass, as the track of its desolation. It is easy to see with the naked eye that the fungus travels over the potato leaf *before* the blight. If the observer carefully regards one of the brown, bright spots, when the disease is spreading, he will see its borders are extending over the still green leaf, in a forest of tiny mold plants, which cover the leaf with a greenish down. This is the true potato fungus, the *Peronospora infestans*, as it is now botanically designated.

THE ART OF SUCCESS IN LIFE.—The Spaniards have a proverb, "The stone fit for a wall will not lie long in the road." Prepare yourself for something better, and something better will come. The great art of success is to be able to seize the opportunity offered. Cheerful, patient perseverance in your lawful calling will best help you to do this. The lesson which our Lord teaches us as to higher things is applicable to all lawful pursuits. "He that hath to him shall be given, and he shall have abundance."—*Sunday at Home.*

EXTRACTS AND REPLIES.

APPLES—THE SEASON IN NEW HAMPSHIRE.

I herewith send you some apples, for which I want a name. I have one tree of them about four inches through at the but. It has borne regular for five years, and has apples on it at the present time. I raised and set the tree myself, but cannot tell where I obtained the bud.

The prospect for apples in this vicinity at the present time is rather poor. Most of the large orchards have been visited by canker worms. They have been increasing fast for the last three years. What a blessing any one would confer upon the community, if he could invent some way of effectually ridding the world of these pests.

We have had considerable rain within the last ten days, the effect of which has been to change the tune of croakers, from too dry to too wet, and make the prospect of a good crop of hay encouraging.

Stratham, N. H., June 15, 1863. GEO. E. LANE.

REMARKS.—The apples sent came in good condition, but were probably kept too long to be as good as they once were. They had become somewhat dry. The fruit is new to us, but we should think worthy of cultivation. It will evidently keep long, and is handsome and good-flavored—rather less acid than the Baldwin.

For the New England Farmer.

BEST TIME FOR CUTTING GRASS FOR HAY.

As the time is at hand for farmers to commence haying, a thought or two on the most proper time to cut the grass may not be amiss to the readers of the *Farmer*. It has been my conviction for many years, that the time of commencing this important farm work was deferred altogether too long, not from any real opinion as to the hay being more valuable and the sward in a better condition by so doing, but other work holding on and demanding attention. This, more than any other cause, has prevented farmers from giving the proper thought to the matter of when—all things taken into the account—it is best to cut their grass for hay. So far as I have been able to glean the experience of others, I find it in accordance with my own,—that early cut grass made properly for hay, will cause the cow to give more milk, the milk, gallon for gallon, make more butter, and the animals fed upon it keep in better condition. That this should be the result is not at all surprising, if we can confide in the analysis of chemists as to the changes that occur in the properties of grass at its several stages of growth up to the maturity of the seed. There *is* a time, of all others, in its growth, when it will make the most flesh and milk, and that time is previous to its being in full blossom. The saccharine matter is then the most abundant, and very soon begins to be changed, as the seed-forming demands of the plant require material for their development, and the stem greater strength for the support of the seed as it approaches maturity. This provision of nature, for the attainment of these all-important results, is exceedingly interesting, and displays, in a wonderful manner, the wisdom of our Heavenly Father in securing the perpetuity of the plant. If, as the plant approaches the seed-forming period, the stem did not gradually become firmer and stronger, the added weight of seed would break it down, and both perish together; but His wisdom has made provision against this result by so arranging the organization of the plant as to secure it against periods of this description.

But to the question of when to cut the grass. It must be, I think, quite evident to the unbiased mind, that, when the plant has hardened up into a woody state, it cannot be as nutritious as when in a succulent or growing condition. All its juices are changed. A large amount of silex is added, and it partakes more nearly of the properties of straw that has formed grain. It is a well established fact, with many graziers, that they can make beef from early cut grass as well as from pasturage. This I regard as an important testimony bearing upon this question. But the loss to the farmer who cuts his grass late is not confined to the fact of the hay not being as valuable for milk and flesh exclusively—but his meadows suffer, and are greatly injured by so doing. The effects upon the sward are very serious. The plant has put forth such exhaustive efforts in forming, maturing and supporting the seed, that but little vitality remains for recuperating its exhausted energies. Should dry weather set in, the farmer will look in vain for aftermath. His fields are in a condition to feel the full evil of his unwise course. They are not very unlike the famishing mother, who keeps her babe at the breast, knowing that it is taking from her her vital existence. In the course of a few years, this process must result in diminishing very greatly the quantity of hay, and render re-seeding absolutely necessary.

These few hints, I trust, will lead the readers of the *Farmer* to try experiments sufficient to fully satisfy themselves of the wisdom or folly of the suggestions made. K. O.

June 15, 1863.

For the New England Farmer.

RETROSPECTIVE NOTES.

AGRICULTURE IN COMMON SCHOOLS.—In the January number of this journal we find five articles on this subject, of which four may be found by consulting the Table of Contents on the last page, and the fifth, on page 39, without any caption, but headed with the maxim of Solomon,—"Train up a child in the way he should go," &c. Beside these five articles there have been several others on the same subject in the late issues of the weekly edition of this journal, some of which, as those especially of N. T. TRUE, in the issues of Nov. 22 and Dec. 27, would probably have found a place in the monthly edition, but for the want of space, and the claims of other communications and other subjects. May we not infer from the frequency with which this proposed innovation in education has been handled or discussed for some months past, that the questions connected with it as to the best employment of our children's time in school, the studies most likely to be useful in after life, and other questions of a similar tenor, are beginning to be felt to be of more importance than has heretofore been attached to them? Such appears, certainly, to be one of the inferences which may be legitimately drawn from the frequency with which communications have appeared upon the subject, in the columns of this journal, during the past year. And we deem this *increase of interest* in questions relating to the education of our children, and their preparation for the better discharge of the duties of adult life, to be a change in the public mind which promises to produce some needful and beneficial improvements, and which, therefore, is most gratifying to *intelligent* parents, patriots, and philanthropists.

In common with many other parents and persons interested in the education of the young and rising generation, we have long felt that the time spent by our children in the common schools was not usually employed as well, and as much for their advantage in after life, as seemed desirable, and also practicable, if only the public at large could be aroused to the discussion of existing imperfections and possible improvements. We have long felt as if the course of studies in schools might be much improved, if some of those which are of little use in after life, as algebra, geometry, rhetoric, the dead languages, and some others, should be set aside, and more attention given to those natural sciences which would be found of use in all after life, either in explaining the phenomena of nature, or the processes and products of the useful arts, which are of every-day occurrence, or in giving such knowledge of the occupations and pursuits of common life as would throw light upon the reasons and principles of these occupations, or lay a foundation for making improvements therein. We have long felt that it is highly desirable, because it would be greatly advantageous, that the time of our children in their school years should be occupied, more than it usually has been heretofore, in studies that could be made directly or indirectly useful in the business of adult life, and in ways that would be more in accordance with the important truth, so pithily expressed by Milton, when he wrote,

> "To know
> That which before us lies in daily life,
> Is the prime wisdom."

With such persuasions in regard to existing imperfections and desirable improvements in the education of youth, we could not fail to be much interested in the proposals and preparations lately made for introducing into schools a study which would give children an opportunity of becoming acquainted with all those portions of the sciences of botany, chemistry, climatology, meteorology, physiology, geology, natural history, natural philosophy, and other sciences, which have any bearing upon the pursuits of rural life,—pursuits which are likely to form the business, to a greater or less extent, of a half or perhaps a majority of the children in common schools, after completing their school education. There are no pursuits or occupations in life upon which, and upon the improvement of which, as much light can be thrown from as many branches of science, as upon the pursuits of agricultural life. Therefore it seemed highly desirable that as much of the sciences referred to as could be made to be of service in the business which is likely to be the main one of more than a half of the pupils in common schools, should be introduced as a study in these schools, and that thus a foundation should be laid for bringing more intelligence and more knowledge into the service of the farming fraternity, as also for the introduction of all possible improvements, and for elevating that largest class of society to a higher rank, reputation and influence.

Had there been within our knowledge a textbook which might have been used in schools to give children a knowledge of such portions of the natural sciences as could be brought to bear upon the explanation or improvements of the processes, phenomena, and pursuits of common life general-

ly,—a text-book which might be entitled "The Science of Common Life, or of Common Things"—we might have considered the innovation of the study of such a manual still more desirable, and more appropriate as an introduction upon the old routine of school employments. Until we get such a text-book, let *intelligent* parents consider the claims of "The Manual of Agriculture," and of agriculture as a study.

In all that we have written upon this subject it has been taken for granted that it would only be in school-districts where there were farmers of *superior* intelligence, having sons of the age of fourteen years or upwards, where there would be any attempt made to form a class for the study of agricultural science, and that this study would only be attempted after the common branches of school education had already been sufficiently mastered or attended to. We never, even in a waking dream or reverie, had such a whimsical idea enter our brain, as that which seems to have taken possession of one who has written many other strange things upon this topic,—things which must have surprised all *sensible* men—namely, that if agriculture should be taken up as a study by some of the more advanced pupils in a school, it is thenceforth to be considered as a study obligatory upon all! This very strange idea is to be met with every here and there throughout the whole of what he has written upon the subject. For example, months after it was plainly stated that no sensible man could possibly regard the study as anything but elective or optional, and only likely to be taken up by the more advanced pupils *who happened to have parents or advisers of superior intelligence*, we find such strange language as the following, on page 15 of January number, from the person referred to: "And the attempt would not be much better in the summer, as the instruction would have to be given almost exclusively by young female teachers in the open fields (!!!) to children between the ages of three and fifteen years, a large proportion of whom are females."(!!!) Such is a fair specimen of the *kind* of opposition which has been made to the proposal of making agriculture a study for the more advanced pupils in common schools. As no one at all likely to have his children educated in a sensible way, is in danger of being influenced by such strange talk, we have not felt it needful to notice it. MORE ANON.

P. S.—In all that we have written upon this subject we have held in view, as the persons to be addressed, or influenced by what we have had to say, persons and parents of sufficient intelligence, wisdom and public spirit, to make them solicitous to do the best possible for their own children, and the rising generation generally, and to enable them, uninfluenced by prejudice, whim, or established customs, to judge wisely and correctly of the claims and value of any proposed improvement, even though it should be a more daring innovation than that under consideration. As *such* are the only ones likely to venture upon a trial of the course of instruction in the *principles* or science of agriculture such as we have advocated, either with their own boys at the fireside, or with their own and others, as a class, in their district school, we have not felt it worth while to notice or reply to the opposition which has come from J. G., as nothing which he has written has seemed likely to influence such persons. No such person could possibly be moved, save in a way we need not name, by the strange extravaganzas which we find on pages 15 and 35 of current volume! That would be a suitable reply to the assertion there made that the study of agriculture is not practicable in schools, because the tools and implements are not there, and because the different kinds of farm work cannot be taught by example! Are there any who see not the true character of such opposition?

LETTER FROM MR. BROWN.

Claremont, N. H., June 24, 1863.

GENTLEMEN:—I came here yesterday to examine the working of some *agricultural machinery*, and one or two other secondary matters. One of the machines which I saw in operation, yesterday afternoon was a *Revolving Horse-Hoe*, or *Cultivator* which surpasses any thing of the kind I have ever seen in efficiency, and in the completeness with which it does its work. I will not enter into any description of it now, because the proprietor has promised to send you an engraving, which will enable me to explain it more clearly than I can with the pen alone. It seems to me that its use must essentially reduce the cost of raising all the crops that require hoeing. Indeed, I cannot conceive of any implement that would so thoroughly prepare the soil for any of the small grain crops, and especially so for preparing sward land, just turned over, to be laid down to grass in August or September. I am quite desirous to see it in operation on such a field.

The name of *Horse Hoe*, or *Cultivator*, which they have given it, is not significant. It does not convey its true character. It is clearly a *lifting machine*. It does not penetrate and push the soil aside as the harrow does, or skim over its surface as does the hoe, but digs into and lifts it up, and, at the same moment, strikes it with its revolving arms, and makes it fine. It is a ROTARY SPADER—having the precise mechanical effect upon the soil that the common spade has in skilful hands—first lifting it, then dashing it to pieces with a blow or edge of the spade. This is acknowledged by all to be the most perfect manner of preparing the soil for any crop,—but in this country is thought to be too expensive to be much employed in our common farm operations,—and I suppose it is.

Another very important farm implement brought into use by the same party is a *Revolving Harrow*, a cut of which I hope they will send for your columns. If they do, I shall take pains to see it in operation, and speak of its merits as I find them.

I am always interested in agricultural machinery that has a circular or a rotary motion, as, under this principle, friction is greatly reduced, and consequently, less team or man-power required, and the work is more rapidly and efficiently accomplished. This is fairly illustrated in the various

machines for cutting hay or straw. With one of these, in good order, having a properly adjusted balance wheel, a man may cut six to ten times as much in a day as he could with one where the cutting knife is raised perpendicularly at every blow —and the work with the rotary motion would be greatly less laborious. I think the mowing machine may yet be constructed upon a rotary principle, and at the same time require less power to move it, while it will accomplish an equal amount of good work. We have hand cultivators now, resting upon a leading wheel, that enable a man to do more, and better work, among certain crops, in a day, than four men can do with a common hoe! This has been fairly tested by candid men, who could have no motive to misrepresent.

I have also visited the works where the *Tyler Water Wheels* are constructed, and saw them ready to be set in place, but had no opportunity to see one in motion. Every part of the wheel is of iron, and the sizes range from two feet to eight or ten feet in diameter. The wheel runs in a close curb, not unlike a wash-tub, if the top were close as is the bottom, with the exception of an opening for the shaft. It is claimed that it will give more power than any other wheel yet invented, under the same head of water. The *Rotary Spader*, the *Revolving Harrow* and the *Tyler Water Wheel* are owned, and the latter manufactured by J. P. Upham & Co., of Claremont.

Having attended to the business which called me here, in company with Mr. Upham, I looked at some of the farms in his neighborhood. His own farm of 215 acres lies upon a high and beautifully sweeping hill, and extending from the highway one mile to the bank of the Connecticut River. The land is of granite formation, with a portion of clay, and with but few stones. In front of his new and elegant mansion, there are upwards of thirty acres in lawn and orcharding—the orchard occupying a slope of the northerly corner. Fine rock maples, elms, spruce and balsams are standing singly or in groups about the house, with well considered vistas at every point through which to see the charming prospects beyond. West of the house is an open field of sixty acres—upon which I did not see a stone—blooming with red clover, or covered with other grasses, acres of corn, oats or winter and spring wheat. Above this was another orchard of some hundreds of trees, and beyond these, toward the river, the grazing land, and then the forest to the river banks—the whole forming a perfect parallelogram.

I have visited many of the places of New England, celebrated for the boldness and grandeur, or for the varied softness and beauty of their scenery, but have rarely seen any that combines the whole so admirably as the views presented from Mr. Upham's house. In front, looking to the north-east, if I am right as to the points, is a broad and deep valley, undulating with hills, partly used as pasturage, or covered with rock maples, or other hard wood, and beyond, still higher elevations, dignified with the title of mountains. In this valley, the cool and pellucid Sugar river, fresh from the deep fountains of *Lake Sunapee*, flowed busily over its pebbly bottom, and sent its sweet music to the skies. Turning a little to the west of north, my eye caught the *Green Mountain Range*, and still farther west, old *Ascutney* sat in sublime grandeur among the lesser hills. Before me, as I turned, in the green, sunny valley, dotted with white farm-houses and grazing herds of cattle and sheep, was the *Connecticut River*, moving on in its quiet summer manner, now along green banks, sandy beach, or through the dark forest. It was perfect,—and has daguerreotyped itself upon my memory so that it will never be effaced. What was the Vale of Tempe, with its Ossa and Olympus, compared with this! Some poet will yet sing of it in immortal verse. Let me quote what a traveller says of the Vale of Tempe, with slight change, and see if our New England Vale is not worthy of the description: "The scenery of this beautiful Valley fully gratified my expectations. In some places it is sylvan, calm and harmonious, and the sound of the water of Sugar River accords with the grace of the surrounding landscape; in others, it is savage, terrific and abrupt; and, especially in the spring, when the streams are swollen by melting snows, the river runs with violence, darkened by the frowns of stupendous precipices." The truth is, we have mountains and valleys, precipices and water-falls as good as any people can boast of—they only need the pen and pencil of a master's hand to make them known. Bierstadt, of Rocky Mountain notoriety, recently passed a month in this region, sketched and painted the scenery which I have just been looking at, and it now graces the parlor or gallery of one of your city merchants. I almost covet the canvas that commemorates so charming a portion of our beautiful world.

The other side of the river is *Vermont*,—but Sheep husbandry commences on this side, and through a range of river towns, Walpole, Claremont, Lebanon, Charlestown, Hanover, Haverhill, Bath, and others, it receives much attention. Mr. Upham has a flock of nearly 300, and his near neighbor Russell Jarvis, Esq., a large flock on his splendid estate of 700 or 800 acres. In his absence, his accomplished wife received me with the affability and grace which always distinguishes a true lady, and which impressed me with a desire to remain longer, or to "call again." My stay on the farm was too short to learn anything of its productive powers, or of the mode of its management. The mansion is surrounded by

majestic elms, forming a sort of rotunda under which a hundred persons might sit at a marriage feast. The position of the house, the spacious piazza and pillars, strongly reminded me of Washington's house at Mount Vernon. Indeed, the hill, the grand old trees, the extended and graceful sweep of land to the banks of Sugar River, and the valley itself, are almost a counterpart of the "Custis Place," opposite Washington City, and known as "*Arlington*," while Custis lived. At his death, the estate fell into the hands of Gen. Lee, who married Custis' daughter. After he perjured himself, turned a rebel and fled from justice, the government took possession of the estate, cut down the splendid trees, and made a fortification of his once pleasant parks!

The grass crop is suffering in this region for want of rain, and all the other crops will sensibly feel that want soon, unless rain comes. The annual sheep shearing has commenced, and the farmers are looking forward with gratification at the prospect of high prices. I hope they may get them, as their share of the profits of manufactured articles, is not always the lion's share.

I must close with an expression of thanks to Mr. UPHAM and his excellent wife, who made their house almost as "home-like" to me as my own. When I am there again, may some of you "be there to see" if "I have extenuated anything, or set down aught" but solid facts. With many pleasant memories of my pleasant visit,

I am truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

FARM MACHINERY.

One effect of the present war upon the agricultural interests of the loyal States is to increase the demand for labor-saving machinery and implements, consequent on the scarcity and high price of farm labor. The business of the various agricultural warehouses of this city is said to be uncommonly good; and the orders for all grades of labor-saving inventions from the mowing machine to the simple wheel-hoe, more numerous than ever before.

Another way in which the war affects most farmers, is by exciting so great an interest in the details of its progress as to cause them to overlook the progress which their own "art and science" may be making in the meantime.

Every farmer should be interested in the great events which are now taking place in our country. He cannot be otherwise. His neighbors, his friends, his own sons, perhaps, are among those who have made the march, or fought the battle, of which the last telegram is a mere rumor, but yet enough to excite the most intense solicitude for more definite intelligence. And thus there is danger that the time which can be devoted to reading, and even to thought, may be given so exclusively to this one subject, that the agricultural journal shall be too much neglected.

While, therefore, the drain that war has made on the young men of our country, and especially of those in the agricultural districts, stimulates the invention and adoption of labor-saving machines and processes, individual farmers may be so much engrossed by the news of the day as not to keep themselves informed as to the value of the various new inventions with which others greatly facilitate the labor of the farm.

Numerous as are the implements which crowd our agricultural warehouses, and slow as farmers may be to adopt their use, we believe that machinery has but just begun its mission on the farm; but that eventually it must revolutionize the process of field labor, as it has already those of the shop and factory.

In "Comstock's Rotary Spader," an implement recently invented in Illinois, the editor of the *Prairie Farmer* sees an agent that is to revolutionize the process and principle of ploughing, which, however modified, have remained materially the same from time immemorial, and still run through all the English experiments with steam power. It has long been predicted by some far-reaching minds that a substitute for the common plough would come; that the spading principle was the true one on which to prepare the seed-bed, and that machinery would yet accomplish the purpose. All this the editor of the *Prairie Farmer* thinks is to be accomplished by Mr. Comstock's invention, of which he says:

"After all the discouragements and disappointments, success has at last crowned the persevering efforts of genius, and to-day the rotary spader, adapted to the use of horse power, stands forth a veritable fact, broad and indisputable—a thing of curved spades, of cams, of axles and of springs, composed of cast and wrought iron and steel—simple, strong and durable, and with which three or four horses can spade an acre an hour, doing the work as thoroughly as if done by hand with the laborious spade."

Mr. J. D. Barnes, of Cornville, La Salle county, Ill., who bought the first machine offered for sale, gives the following description of his first day's work with it, in a communication to the *Prairie Farmer*, dated May 30, 1863:

"Hitching on four horses at 8½ A. M.., I started, making a circuit around one end of a strip of seven acres, (about one-third of it;) the ground was in fine condition, the stalks having been raked and burned, and it worked beautifully. The horses worked at an easy gait, and in a short time, with my three feet swath, the piece was spaded, and at the end of three hours, (11½ o'clock,) had made a couple of rounds on the balance. At 2¼ P. M., started again, and at 7¼ o'clock, finished *seven acres in seven hours*, eight inches deep.

Was there ever that quantity of ground spaded or ploughed in the same time by one man and four horses? A new era, Messrs. Editors. An

acre per hour, and no walking. Do you think I can ever again walk behind a plough, when the spader will work?"

Another correspondent who witnessed this trial adds:

"The land was well adapted to the purpose of testing the machine, being part slough, with patches of blue grass. Mr. Comstock makes no pretension of working in sod, still it is well to see what it will do in any place. Corn grew on the dry portion last season, the stalks of which had, previous to the trial, been dragged into piles and burned. With the exception of the blue grass, the work was performed in a satisfactory manner on both dry and wet land. The weeds were covered equal to ordinary ploughing immediately harrowed. It is not uncommonly laborious for the team. The land was better pulverized than a plough could have done it, especially in the slough.

A Portable Feeding Rack For Sheep.—A sheep farmer of Columbiana county, Ohio, who has tried several kinds of racks, gives the following description of one which prevents crowding, is every way satisfactory, and so simple that any farmer can make one. It consists of four posts three feet long, and if made of three by three scantling, will be heavy enough. Two bottom boards one inch thick and ten or twelve wide, and two for the top, one inch thick and five or six wide. These boards are placed horizontally for the sides of the rack, and similar boards two feet long are nailed to the posts at the ends. The rack may be about twelve feet long, and two feet is a very suitable width. Upon these horizontal boards are nailed uprights, six inches wide, and placed six inches apart. This makes a cheap, portable rack, which we like in every respect.

Cause and Cure of Lice on Cattle.—Some of the washes and applications recommended for the destruction of lice on cattle are dangerous or positively injurious to the health of the animal. Whatever may be thought of the cause of lice so confidently asserted in the annexed extract of a communication in the Boston *Cultivator*, there need be no fear of the bad results of the application of the remedy proposed:

No one ever saw an animal in good condition lousy, and no one ever saw a poor one, that was so for any length of time, that was not. This I consider proof enough; but if any one doubts, let him try the remedy of good feed, and he will soon see how much superior it is to all the washes so highly recommended. The decay of the skin, consequent on the change from fat to lean, produces lice, and the way to cure a disease is to remove the cause.

☞ The Canadian government is about introducing a new patent law, which will be found of great importance to American inventors. Under the present system patents are granted only to resident Canadians; under the new, it is proposed to extend the protection to inventors of all nations, without distinction in favor of natives.

RINGBONE ON THE HORSE'S FOOT.

This painful, and often fatal disease, is occasioned by the violent efforts the horse makes, in obedience to the commands of the driver, when dragging a heavy load up some sharp ascent. The entire force is then thrown upon the pastern, inflammation ensues; lymph is effused; the lymph becomes cartilage, and the cartilage is converted into bone. Then a morbid enlargement of the bone is established, and a *ringbone* is the consequence.

THE PASTERN AND PEDAL BONE OF A HORSE AFFECTED WITH SEVERE RINGBONE.

1. The joint between the pastern bones, showing the groove in which the tendon of the extensor pedis muscle reposed.
2. The joint between the lower pastern and the bone of the foot.

This cut represents the foot and a portion of the leg after death. The cut below represents the foot of a *living* horse with aggravated ringbone.

An animal thus affected might move an easy load upon even ground; but when the weight had to be drawn up hill, the creature would obviously be unable to use the toe; the foot, placed flat upon the ground, or so shod as to have an even bearing, would be of comparatively little use in such a case. So, also, in descending an inequality, the horse with severe ringbone will be unable to bite the earth. Ringbone, therefore, does incapacitate the animal for many uses, besides interfering with the free employment of the muscular energy.

We have seen a yearling colt utterly worthless by *ringbone*, transmitted, undoubtedly, by diseased parents. We hope the time is not distant when all diseased horses, of both sexes, will be rejected as breeders. Until that is done, we cannot reasonably expect sound and valuable animals.

Mayhew,—from whom we have already freely quoted,—says that when a horse first shows ringbone, we must first seek to allay the pain. Apply poultices, on which one drachm of powdered opium and one of camphor has been sprinkled. Rub the disease, with equal parts of oil of camphor and of chloroform. The pain having ceased, have applied, with friction, to the seat of enlargement and around it, some of the following ointment, night and morning:

Iodide of lead.....one ounce.
Lard.....eight ounces.

Mix thoroughly, and continue treatment for a fortnight after all active symptoms have disappeared, and allow the animal to rest. When work is resumed, mind it is gentle, and be careful how the horse goes to its full labor.

For the New England Farmer.

OUT WEST.

Not at Home there—Tenacity of the Mud—Mode of Pronouncing—Raising Corn—Hog Cholera—Wild Geese—Sand Hill Cranes and Prairie Chickens—Poor Farming—Cattle Raising Why the West is not like New England.

Very little can be said of a country by simply seeing the little the railroad allows you to view in passing over it. Sufficient, however, may be gathered to convince a New England man that he is not at home after entering New York State. The people talk and act differently; do all things differently. The appearance of the houses and out-buildings is also of a different type. As you go on west, this change becomes more marked and decided. As to the soil, each day's journey convinces you that it is improving, until you reach the Wabash Valley, which is regarded by some as the best, or as good soil as any east of the Rocky Mountains. Of one thing I am quite sure, viz., that it is not to be beat in any favored locality east of Ohio.

My arrival here was very opportune for seeing that it made up first rate mud, of the most affectionate character. As the winter frosts were coming out, the roads were all but impassable, save by pedestrians, and men on horseback, which is a favorite mode of travel here. The people are careless of personal appearance, and very untidy, according to our down East notions of such things. I think this is somewhat peculiar to all new countries, especially where so much mud abounds as here. Peculiarities of pronounciation are very amusing, and modes of expression still more so. A day or two since, in talking with a man about his corn, he "thought he should have but little to *spar*, as he had *right smart* hogs to feed that would take *right smart* corn to carry them through." This is a very common mode of speaking, hereabouts.

The farming, if farming it can be called, is very bad. Very few of the fields are kept clean from weeds. They increase rapidly, and cause much trouble eventually to the farmer. It is impossible to have it otherwise, as matters are now managed. Corn is often sold here, in Benton county, Indiana, from 8 to 12½ cents per bushel. All can readily see that if the same care in raising it was bestowed as the Eastern farmer gives to his crop, it would ruin him hopelessly. A man with a pair of horses ploughs, plants and tends 40 acres, going through the hoeing with a horse hoe, and never using hand hoes. It is usual with many, as soon as the sun is up, to go over it with a triangle harrow, with the front teeth out, so as to run each side of the row, using a span of horses for the purpose. I have seen some fields very neat and clear of weeds, but most of them are very foul. A large share of the corn growing is done by tenant labors, on shares, or at a given price per acre or bushel, as the parties agree. The owner of the land in most cases, I believe, finds a house, (or a substitute for one,) and firewood. If the tenant has a team of his own, (which most do,) he hauls his own wood, and gets a better lay on the crop produced. I think most of the corn in this county, and I think in all this region, is fed to cattle, before husking or shucking, as it is termed here. Most of it is shocked, but a large amount is fed off the field by cattle and hogs. This seems a wasteful process, but many make, or have made, money by it, especially previous to the cholera killing so many hogs.

Corn here, as at the East, has enemies to contend with of the same character as with us, and, in addition, some far more formidable. Wild geese, sand hill cranes, prairie chickens, &c., often make sad havoc with it as it first comes up. I heard a man say that the geese will often destroy acres in a single field in one night. They also take off large quantities from the shocks and standing corn. I saw a man come in this morning from his field with five geese, having killed seven before breakfast. Another told me he had very hard work last fall to drive the geese from a wheat field of 80 acres. He was mounted on a good horse, and it took near an hour to clear them out. A sure marksman, I think, in spring and fall, could make a good business in shooting geese, ducks, cranes and chickens for their feathers alone.

But to return to the farming. It seems to be a settled thing with farmers, that wheat does better on sod ground than corn, and the first crop also better than succeeding ones. I am surprised at the small quantity per acre produced on an average. Bad management is at the bottom of it, I think; not seed enough sown, and not good at that. Poor seed, or that which has not been judiciously selected and prepared, is sown, and results in consequent poor returns. Corn and wheat are the only crops cultivated to much extent. Sorghum is gaining in favor, and is a remunerative crop to all who use proper care in its culture and manufacture. I like the syrup of this plant; think it more palatable than New Orleans, or other molasses. It is made into syrup on shares, by those owning mills for grinding, and evaporators for boiling. One-half of the product is retained for manufacturing, which, I am told, is quite a profitable business.

This region, however, is not strictly a farming one, but farming is subordinate to cattle-raising and grazing, or an appendage to them. The settlements skirt the timber lands bordering upon the prairie, which, to a large extent, is unenclosed, and affords a grand range for stock of all descriptions. This peculiarity of this locality has led to cattle herding to a great extent, as the principal business of those who can command the means to do it. It is also very profitable to the judicious buyer, netting him 80 per cent., and often more on a single season's pasturage or herding. I know parties who are now gathering up a herd of two and three year old steers, intending to herd this, and the coming summer, and have them kept through the winter for four dollars a head, which is all the expense they will be subject to, except one man's wages as herdsman, through two summers. Thus you see they get 18 to 20 months growth on cattle that are in the right age for it, for about four dollars per head. It is expected they will get $20,000 for what at first cost them $10,000. Stall feeding is often practiced here. This method is not what we at the East have generally supposed. A man with a large lot of cattle builds up a yard according to the number to be fed, and puts them into it, and goes to his fields, and hands out his corn which is in shocks, or standing, and throws it to them over the ground, and letting it take its chance for being eaten. Hogs take what they can find after the cattle. Others have two lots, feeding alternate days in both—the hogs coming around after the cattle. One hog is allowed for each steer to do the glean-

ing. The cholera has made such havoc with the hogs for a few years past, that many are discouraged about keeping them. Cattle-breeding is, by the smaller farmers who cannot command means for buying herds, followed pretty generally. As now managed it is, I think, far from profitable. The cow is rarely milked, except for the purpose of getting a little milk for table use, or to prevent disease when the calf is unable to take the whole, which is of rare occurrence, as the cows give but little milk, owing, I think, to wrong management when young. The calf, when a year old, is now worth about five dollars. This, of course, allows a very small margin for profit on the cow. Horses are bred much more profitably. As keeping is so low, it might be made a very good business. Sheep are the most promising breeding stock here. I think, with judicious management, they will pay 100 per cent., annually, This may seem rather extravagant, but the figures will tell the story. After shearing, last season, sheep could be bought from $1 25 to $1 50 per head. To keep these until now, costs comparatively nothing—to winter them on corn at 12½ cents per bushel and hay four dollars per ton, would not exceed 75 cents each. As soon as the grass starts in April, they get their own living. A flock of 1500 on the farm where I am now writing, averaged four pounds each. Lambs in the fall are worth $1 each. Now you can appraise the wool at what it sold for last July, viz., 42 cents per pound, and we have $1 68 for wool, and $1 for lamb, or $2 68 for product of one sheep one season, at an outlay of 75 cents, or a profit of 125 per cent., sure. I think this profit might be greatly augmented by keeping better breeds and providing better shelter for them. There is a flock of a thousand in sight from my window, that are lambing, and about every fourth lamb dies on account of the exposure to wet and bad weather. Prairie wolves are at times a little troublesome, but are being rapidly exterminated. Dogs, as in New England, are far the worst foe to the sheep. One thing is quite sure, I think, as to the profitableness of farming here, compared with New England, in favor of this section. A man of good judgment on stock, is sure to succeed in making money, providing he has means to start with. Money is worth ten per cent. interest, and must be soon turned over if a man looks for profit in using it. Were it not for the want of good roads, good society, religious privileges, and the prevalence of the ague, no place would suit me better to locate my boys than this county, (Benton.) To an Eastern man, they are indispensable to his happiness—especially, if past the prime of life, as he cannot hope to see them fully developed in his day.

K. O.

Important Decision.—A wool suit in Ohio was recently decided against a seller who inserted dirty tags in each fleece, and represented the whole as clean washed wool. The buyer sued for the difference in value fifteen cents per pound, when the seller pleaded that he was not liable, as it was a customary practice, and if not, the buyer should have examined the wool. Several respectable farmers testified that it was not the usage. The judge held that the buyer was not obliged to examine the wool, when the seller gave his word that it was clean, and rendered a decision in favor of the buyer for the claim and interest.

For the New England Farmer.

CANKER WORMS.

Mr. Brown:—I send in a phial for your inspection, a few specimens of what were, six days ago, canker worms, preying upon my trees to my infinite disgust. I dug them from the ground this morning, finding others three to five inches below the surface. You will observe that they are now in their pupa stage, having thus suddenly lost all their characteristics as worms, and having the usual legs of their last, or propagative stage, plainly visible beneath the covering. As there has been some discussion as to the time when this change takes place, I send these specimens to show that it is very soon after leaving the trees. They live in the ground, perfecting this stage, as you well know, until the fall of the year, when they begin to ascend the trees to deposit their eggs for the next year's crop; and when, if ever, they must be looked after.

I say begin to ascend the trees, because while some assert that they go up in the fall, others say in the spring. Having watched them carefully for several years, I can assert that they go up at all times when the weather and the state of the ground is favorable, from the 13th of November, in each year, to the 20th of April following. Sometimes, (and oftenest,) the most of them go up in the fall; sometimes the most in the spring; frequently, a great many can be found in warm, muggy weather in the dead of winter, while I have seen them on their travels with the mercury at the freezing point and below.

How shall they be got rid of? This is a serious question to every orchardist in districts where this pest operates; but, so far, no simple, practical remedy has been discovered. The oil-troughs are undoubtedly a perfect stopper, but much too expensive. Tarred bandages come next. But these have their objections. The application is an odious and an unnatural one; the tar defaces and injures the trees, and is, besides, liable to become hard, and serve the slugs as a bridge. There must be a simpler remedy than either, or than any yet discovered; and it is for those interested to put their wits at work and find it out.

One or two facts in relation to these fellows are really remarkable. They always disappear from the trees on the 13th day of June, never varying, according to my observations for seven years past, two days either way, be the season backward or otherwise. And they all drop down their tiny lines and go at once. Your trees may be covered one day, and not a solitary worm can you find twenty-four hours afterwards.

Then I have noted their "first appearance" in the fall of the year. Somehow or other, it always happens on, or very near, the 13th day of November. In our variable climate, where the crops in the spring are sometimes at least three weeks earlier than at others, how does it come to pass that these creatures are so regular in their exodus? And in the fall, too, so liable among us to become cold winter before the husbandman is aware of it, or to extend its many-colored geniality far towards the coming new year; how does it happen that, at nearly a fixed date every year, these clumsy bearers of life in the future should commence their pilgrimage?

But, interesting as these living preachers are, I shall do my best to exterminate some of them at

a proper time. And I trust that others, having like afflictions, will also enter upon the work with renewed zeal? It is high time. W. GUILD.

Newton, Mass., June 19, 1863.

REMARKS.—We sincerely thank our correspondent for this communication. There is no subject of greater interest to the farmers and gardeners of Eastern Massachusetts. We shall be very glad to receive other articles on this (or any other) subject from the same pen.

For the New England Farmer.

LITTLE THINGS,

OR A WALK IN MY GARDEN.

I have been walking through my orchard to-day and came across a tree which bears an excellent apple but it has no name. This led me to seize my pen and write a word respecting the

NAMES OF APPLES.

Apples are like men. A small minded man sometimes has a high sounding title which bears him along wonderfully through the world. An apple sometimes finds its way through all the orchards in the country whose only recommendation is its name. Almost any orchard of native fruit could furnish one as good. I have several trees grafted by somebody, probably from some seedling variety. It has no name, yet I prefer it as my eating apple, from February till June, before all others. Men of real worth without a title are sometimes appreciated by those who best know them. Man's weakness is shown in his deference to high sounding titles without regard to merit; mine has been shown in search of similar titles to apples. A great title without merit is shown by not producing much fruit. I have a large tree whose title is known in all the books, yet it has never furnished me a bushel of fruit. Conclusion. To see whether in men or apples their titles and merits coincide.

While looking at some cabbage plants I was led to inquire whether I had not found out a foe to the

CUT WORMS.

Would it not protect the plants to throw a handful or two of dry sawdust around them? I shall try it. A little paper platform, made by taking pieces of paper six or seven inches square, cutting a slit and slipping it over the plant saved my cabbages last year. The paper should have a little dirt or a stone put on to the corners.

SUNDRY ITEMS.

While taking my garden walk I sometimes indulge in imaginary things, which, however, I rarely put on paper, but oftener take up the realities of life. This morning I was thinking over a list of articles, which, so far as I know, have not yet been invented to meet the wants of man completely. Among these wants is an indelible pencil which shall be a complete substitute for pens and ink. Whoever will invent or discover anything of the kind will make a fortune and bless the world. Ink is altogether behind the age. We want for the "women folks" wash-tubs with stronger handles than those now in use. A kerosene lamp with fixtures that will not be easily broken. A cheap, neat and durable window snap. A mowing machine where the weakest part is made the strongest. A light hoe with a strong neck. A washing machine warranted to run a year, and which the domestics can use without calling in the aid of the men. Hens that will not scratch up your garden and make you say hard things against them. A paring machine that will be as good in three months after use as before.

N. T. T.

LETTER FROM THE FARM.

Concord, July 6, 1863.

GENTLEMEN:—It is now more then two months since we have had a rainy day—that is, a rain reaching down and soaking the grass roots. The drought begins to pinch sharply. On the higher ard old hay lands, the grass has come to maturity, clover heads ripe and dry, and haying, in such places, is in brisk progress.

The *Indian corn* is stout, dark green and vigorous, but not high. *Barley* is beginning to head, and feels the want of rain, *Winter rye* is halting, while *oats, wheat, potatoes* and all garden stuff wilt a little in the hot sun, and look "desponding." Before I close my letter, I hope to be able to announce a "refreshing rain."

Asparagus Beds.

I have been weeding and hoeing the *Asparagus Bed.* The family have done cutting it for the season, and it is running up to seed—some of the stalks are already four feet high. We are taught that the *seeding* of a plant exhausts it more than all its previous growth. If so, why do all persons allow their asparagus to *run to seed* after they have done cutting, instead of heading it down as we do grape vines, roses, peach trees, and many other plants? Will some one, better informed than I am, enlighten me?

Shade for Young Grass.

One of the most earnest and interesting discussions at the *Concord Farmers' Club,* occurred last winter, upon the question whether *the shade afforded by the oats or barley sown with grass seed, was favorable or unfavorable to the growth of the young grass?* I took the affirmative of the question—that the shade *is* friendly to the young grass, shading, sheltering it, and tending to keep the ground moist and in a favorable condition for its early growth.

I have now spent a considerable portion of the time for several days in pruning apple trees in an orchard laid down to grass last April, where barley was sowed with the grass seed. The trees do not cover the whole ground, so that there are numerous open places that are fully exposed to the sun. In those open places, the grass does not appear so well as it does under the trees. This fact was observed by another person who was in the orchard a part of a day with me.

In looking over LIEBIG'S new work, on *The Natural Laws of Husbandry,* I find the following,

fully confirming the position which I have taken. He is speaking of the radication, that is, the rooting of plants, and says:

"Clover, grass seeds, and small-sized seeds in general, put forth at first feeble roots of small extent, and require so much the greater care in preparing the soil, in order to ensure their healthy growth. * * * It is, therefore, found advantageous to *sow clover together with grain of some kind; for, as the grain is earlier and quicker in growth, its leaves shade the young clover plant, and protect it from the too intense action of the sun's rays;* thus affording more time for the extension and development of the roots."

This is precisely the ground I assumed in the discussion, and my theory has grown into *fact* by this high authority, and by the observations I have since made.

Harrington's Sower and Weeder.

Some time since, I spoke of a new *Seed Sower*, the invention of Mr. S. E. Harrington, of Greenfield, Mass. I spoke of it merely as a Seed Sower, but have now been using it for two or three weeks as a *weeder*, and find it entirely superior to any and *all* other implements of the kind, for weeding and stirring the ground to a depth of even four to *six inches!* It is light, easily handled, and beautiful to look at. It is *fun* to *work hard* with such a machine. Mr. Harrington has conferred a great service upon the world by devising and introducing so excellent a labor-saving machine. I wish some of our extensive onion growers and gardeners would come here and try it.

Late Hoeing of Corn and Other Crops.

Silent assent seems to be given to an old rule, that the crops must be hoed *three* times, whether they are weedy or not, and no more, though the ground be covered with weeds. Three times is enough, and the soil ought to know better than to throw up weeds after such a scarification, say some; we cannot afford to hoe any more, and so the crop is left to try its powers with the weeds, and generally comes out second best.

A part of the object of hoeing, certainly, is to *eradicate the weeds*, but there is a principle involved in it far beyond this surface work. Still, the weeding is very important in the following results:

1. It removes the weeds and prevents their taking properties from the soil that the plants need.

2. It prevents their seeding and extending their kind through an indefinite number of years.

3. The succeeding labor upon the crop will only be about half as much after the weeds are taken away.

There may be other advantages derived in taking away weeds, but these three are enough to move every judicious farmer to exterminate them as fast as they appear.

There are other, however, important reasons why crops should be hoed once or twice more than they usually are. In hoeing, we mean to include what generally precedes it, working the soil to some depth either with plough or cultivator. These operations give some valuable results.

1. If the soil is too wet, they loosen it and let in the sun and air to dry it and make it more light and porous.

2. If too dry, loosening the soil admits the most air, and renders it capable of receiving and retaining any drop of dew that falls upon it. When a slight rain-fall comes, being light and open, it catches and holds every drop that falls, while on a hard surface it rapidly flows off.

3. Every drop of water that goes into the soil carries a certain amount of *heat* with it; this is left in the soil, warms the tender roots and gives them a rapid growth.

4. Rain water is charged with ammonia and other properties, which the plant greatly needs. When the surface is in suitable condition to receive what falls, and pass it along down the subsoil, every rain is equal to a slight manuring of the plant, so that the farmer who cultivates and hoes thoroughly finds his crops dressed from the bounties of the skies, while neglected fields of hard surfaces find few blessings in the shower.

Two rules should always be observed in regard to hoeing, viz:—

1. Hoe whenever there are weeds, whether in June or October.

2. Hoe whenever the surface is compact and dry, whether in June or September.

Very truly yours, Simon Brown.

Messrs. Nourse, Eaton & Tolman.

Cows in Honduras.—A lady correspondent of the *Working Farmer*, who had been nursing an invalid husband in Honduras, gives the following description of the management of cows in that part of the world:

"We were much disappointed in the quantity of milk given by our cow, but the quality was most excellent. The cows are managed here in a most miserable way, and never domesticated. The calf is tied near the house, and the cow allowed to wander at will, and often it is her will to go quite a way from home. When she returns to her calf, it is untied and allowed to commence sucking; then it is pulled away, tied to the cow's leg and the milking begins. Sometimes a pint, often less, but seldom more, is obtained; and they never milk the cows in Honduras but once a day. Often the cow would take a very unmotherly turn, and leave her calf from one day until the next. Our feelings on such occasions cannot be appreciated except by those who have drank their tea and coffee for months without this luxury, and who have seen those dear to them unable to obtain what, at the North, is almost as abundant as water."

EXTRACTS AND REPLIES.

SOWING CLOVER SEED.

I wish to inquire through the *New England Farmer* as to the best time to sow "clover seed" with winter wheat? Last fall, while sowing my wheat, I was advised to sow my clover seed in the spring, on a light snow, that it might not get so high as to trouble me in harvesting the wheat. I did so, but my seed did not take. I desire farther information.

Rochester, June, 1863. A SUBSCRIBER.

REMARKS.—The general practice is to sow clover seed early in April, and it is a good one. The probability is that your seed was not good, as good seed very seldom fails.

COUGH IN A COW.

I have a young and valuable cow that has got a severe cold. She coughs hard and frequently; she breathes short and quick, and there is a very bad smell from her breath. If you would inform me through your valuable weekly journal the best remedy I could apply to her, I would feel indeed grateful.

East Abington, June 1, 1863. A READER.

REMARKS.—There are so many causes of cough that it is utterliy impossible to prescribe intelligently for a cow—had we ever so much skill—without seeing her. If not much acquainted with the diseases of animals yourself, call in the person who is best acquainted. Avoid all severe nostrums and treat her as rationally as you would a member of your family under similar circumstances.

NEW BOOKS.

THE NATURAL LAWS OF HUSBANDRY. By JUSTUS VON LIEBIG. Edited by JOHN BLYTH, M. D., Professor of Chemistry in Queen's College, Cork. D. Appleton & Co., New York, 443 Broadway.

The subjects discussed in this work are—The Plant; the Soil; Action of Soil on Food of Plants in Manure; Farmyard Manure; the System of Farm-yard Manuring; Guano; Poudrette; Human Excrements; Earthy Phosphates; Ground Rape Cake; Wood Ash; Ammonia and Nitric Acid; Common Salt, Nitrate of Soda, Salts of Ammonia, Gypsum, Lime; Motion of Sap in Plants; Water Constituents; Experiments in the Growth of Beans; Japanese Agriculture; Analysis of Clover; Clover Sickness, and its Causes.

Under a notice of the *Importance of Good Seeds*, the writer says,—"Poor and sickly seeds will produce stunted plants, which again will yield seeds bearing in a great measure the same character.

"The horticulturist knows the natural relation which the condition of the seed bears to the production of a plant, which is to possess all or only some properties of the species; just as the cattle-breeder, who, with a view to propagation and increase of stock, selects only the healthiest and best formed animals for his purpose; the gardener is aware that the flat and shining seeds in the pod of a stock gilly-flower will give tall plants with single flowers, while the shrivelled seeds will furnish low plants with double flowers throughout.

"In the selection of seeds for planting it is always important to take into account the soil and climate from which they have been derived. In England, seed wheat from a poor soil is considered particularly well suited to a rich soil."

The work is crowded with facts and suggestions of great value to all who cultivate the soil, and which tend to elevate the occupation in the mind of studious and reflecting persons. We look upon it as a valuable accession to our agricultural literature, and thank the enterprising Publishers for placing it in our hands in so beautiful and attractive a form.

We have marked many interesting passages to lay before the reader at a future time.

For the New England Farmer.

RESTORATION OF WORN-OUT PASTURAGE.

MESSRS. EDITORS:—He that can devise the best and cheapest way to restore worn-out pasturage to fertility is worthy of a medal. A general complaint among farmers throughout New England indicates a deterioration of old pasture lands, and a great deal of interest is manifested among us for a remedy. The example of Capt. MARSH, Superintendent of the State Almshouse at Tewksbury, is worthy of consideration, and I believe imitation. Every farmer would do well to read that section of his report to the Inspectors relating to cows and milk. In a recent conversation with that gentleman, he told me that, when he entered upon the premises, the pasturage was so scanty and poor that but two cows had been kept, and pretty strong objections were made at any attempt to keep more, for the want of pasture or summer feed, but he tried the experiment and succeeded in keeping twenty-five cows, with great benefit to the State and institution, obtaining milk at a much cheaper rate than formerly. Instead of pasturing his cows, he began upon the soiling system; he ploughed the old worn-out pasture ground and sowed millet for green feed after grown sufficiently, preferring it to Hungarian grass for that purpose, it being a more rapid grower and of larger production, obtaining two crops from the same ground in a season. By this course of management, he restored the old worn-out pasture land to productiveness, and his pile of manure grew in proportion to the quantity of millet and other green crops consumed by his stock of cattle. He feeds his cows on chopped hay and straw till his green crops are grown. He keeps his cows in their stanchions, with the exception of an hour or two in the yard for exercise and air each day.

Cows are naturally quiet, indolent animals, when well fed, and endure confinement with apparent indifference, if not satisfaction; they have no anxiety, like the rest of us, about what they shall drink, or wherewithal they shall be clothed, which is wonderfully in favor of their lacteal productions. Cows that are fed in the barn escape the incessant teeth-wearing labor, and the annoyance of flies suffered by half-starved animals, while ransacking old dried up pasture grounds for a scanty pittance of miserable vegetation, which is so hardy as to continue after every kind of grass of a nutritive quality is extinct. The labor required to sustain life upon old, dried up pastures, is so exhausting that cows have very little unappropriated milk for the milker, and cows kept in that

manner often go dry from September till June, while the same cows, well fed, would have given milk more than ten months in the year.

At the first view, the farmer considers soiling of cows a laborious and expensive way to feed cattle, but when evidence is produced sufficient to convert the most obstinate heretic, that the best way is the best, he admits that soiling cows a part or all of the season will eventually prove the cheapest. I have observed a great variety of ways to keep a great stock of cows without an adequate amount of sustenance; what comes next? The cattle are hungry, the pasturage all gnawed down by the first of August; then the old fences have to undergo an inspection; the point is selected, and in goes the leader of fifteen or twenty head of starved cattle to the corn field. Then a deputation of hands must go and repair fences! Cattle cannot live like an air plant, and the old wooden fences are like a spider's web; they must be fed, or they will hold possession of their territory acquired by stratagem, and break down any fence rather than starve. Now, which is the cheapest way to keep cows after the flush of pasture-feed is past—to reduce them nearly to a state of starvation by a continued grubbing of dead grass, and breaking down fences, a shrinkage of milk, the loss of destroyed crops, and the time spent by watcher and repairer of fences; or to feed them with a full supply of millet, or other green feed, in the barn, that will keep up a flow of milk through the season, and at the year's end leave them in better condition, beside a very important advantage in the large quantity of manure saved which would have been mostly lost by strolling cattle that ramble at large? My own experience has taught me that two cows, fed well in the barn, will give as much milk, and of a better quality, than four treated on the old custom of living in the pasture and barnyard from the 20th of May to the 20th of November.

What is the benefit of keeping cows that gain no flesh nor give any milk? I can think of no better plan to restore old pasture land to fertility than by adopting Mr. Marsh's scheme. The advantage is apparent. It is making his land rich, and augments his manure heap at the same time. He says the farmer cannot afford to buy manure. The great quantity of better quality of manure saved by soiling cattle will go far toward defraying the expenses of extra labor. It strikes me that the best way for a small farmer, I mean one who has but a small farm, and keeps but a small stock of cattle, could he have plenty of millet, Hungarian grass, or cow corn, as it is called, in readiness to supply cows on the failure of pastures, which often happens by the first of August, would be to soil his stock, instead of the hungry animals being obliged to shirk for themselves. He would be amply compensated by a continued, undiminished supply of milk, as well as an augmented quantity of manure, equal to pay the expenses of extra labor. Silas Brown.

North Wilmington, May, 1863.

The Connecticut Agricultural College.—The Legislature of Connecticut has appropriated to the Sheffield Scientific School, New Haven, the public lands given to the State by Congress under what is known as the Agricultural College bill.

For the New England Farmer.

CLOVER.

BY R. F. FULLER.

Hail, scarlet synod, clover crowd!
With bees among ye flaunting proud,
And zephyrs floating overhead,
That kiss the clover blossoms red;
Long may the scythe unforaged be,
That felleth you—that felleth me!
For what discussion come together,
With cowls of scarlet crowd the heather?
Tell me what jest that zephyr said,
Made every member toss his head?
'Twas such a giggle shook the clover,
When the last zephyr floated over!

Exotic flowers let others choose,
By art begot of gorgeous hues.
To hybrid monsters, made for pride,
The charms of nature are denied,
And we would render in our lays
To simple blossoms, sweeter praise.
Nor seems the clover least of these;
Whose scented breath a summer breeze
Wafts to the window, where I sit
Perusing pages genius writ,
While oft from them my eye has drawn
The clover's laugh upon the lawn,
Whose shaking sides my heart impress
With a contagious jolliness!

Good humored blossoms! I discern
Other wise lessons I may learn,
By moralizing much of thee—
Contentment and tranquillity,
Sweet temper, and a disposition
To make the best of my condition,
While in my sphere I still dispense,
Like thee, a pleasant influence!

THE DATE.

There is no fruit that can be eaten so constantly, or with so much impunity, as the date. It is like bread, and is bread to whole nations of orientals. And what a delicious bread, baked by the sun, and showered in profusion upon the earth, to be gathered and laid up for the future, either dry in huge corbels, or pressed into a conserve, which, when cut into slices, looks and eats like plum-pudding. We have often been present while this dainty was in preparation: first, with a little brush made of fine palm-leaves, the particles of sand are whisked away from the fruit, which, having then been laid open with a sharp flint, the stone is taken out, and if large and fine, laid aside for planting; next, the dates are thrown into a clean, strong, square vessel like a tub, and having been closely pressed by heavy weights laid upon a thick board made to fit, the whole process is completed. Immense quantities of this conserve are exported from Egypt and Arabia into all the neighboring countries, where it is much prized, especially in the harems, where the women and children may almost be said to eat it incessantly.

No man can starve in a date-country during the three months of the year in which the fruit is eatable, since he has but to throw up a stone into the tree to bring down his breakfast or his dinner. For this reason chiefly, tents are pitched and villages built in palm-groves; and as hogs are turned into the woods in acorn-time, so children are let loose in the palm-woods throughout the whole period of the date harvest to collect their own provisions, and feed as they list. You may often, as you journey along, observe troops of the little gourmands, who,

having eaten to repletion, have fallen asleep amid the remains of their meal; while the generous tree of whose bounty they have partaken, waves and rustles over their heads, letting down occasionally glints of sunshine, which, glancing over their dingy red caps and many-colored rags, convert them into a curious picture.

THE FARM IS A MANUFACTORY.—It ought to be so regarded. The soil should be looked upon as bearing the same relation to the agriculturist that any raw material does to the manufacturer of that specific raw material. It is the stock from which is to be wrought out the marketable product. What is put on the soil in the shape of seed, fertilizers, labor, should always be regarded, together with the interest on the money invested in the land, as going to make up the cost of the product—of the article manufactured from the soil. And the farmer should know precisely what this cost is,—and it should govern the price at which he sells his product. Now, this is a very simple and self-evident proposition. It has been often repeated; and yet it has got to be told a great many thousand times more before the mass of farmers will appreciate its importance, judging by the ratio of their progress in this matter in the past.

We refer to it now, and so often, because we believe it is as emphatically the basis of success in agriculture as in manufactures. And we intend to repeat it until our readers, who do business hap-hazard and fail, shall understand how to go to work to find the leak that is sinking the ship.—*Rural New-Yorker.*

SUPPOSED DISCOVERY OF THE SOURCE OF THE NILE.—Mr. Wm. H. Goodhue, the Vice Consul at Zanzibar, reports that Messrs. Spehe and Grant's expedition in search of the source of the Nile have been almost, if not entirely, crowned with success. The two mentioned English gentlemen left Zanzibar Sept. 25th, 1860, on the expedition, and were last heard from in March, 1862, when Capt. Spehe had discovered the Niverango river, which, he writes to her Britannic Majesty, he believes to be the first certain branch of the Nile. It is 400 yards wide, with a gentle flow to the north. It takes its rise, lon. 12, north latitude, in the Victoria Masanza, a lake discovered by Capt. Spehe. The expedition could not move forwrad in March, 1862, through the kingdom of Ugauda, through which said river flows, owing to the unwillingness of the natives. Capt. Grant was heard from April 11th, 1862, and was then behind Capt. Spehe, making explorations and scientific observations, which is about 1° 30′ south latitude.

CURE FOR POISONING BY IVY.—In case of poisoning by ivy, plunge the part affected in hot water—as hot as can be borne—holding it there some time. The unpleasant itching and burning sensation will be removed—and two or three applications are a sure cure—at least this has been the case with our informant.

HE can hardly be prepared to enter the world of spirits who trembles at the thought of encountering a solitary ghost.

NO MARKET FOR CATTLE.—The farmers of California have issued a call for a convention to devise ways and means by which they may obtain a higher price for their beeves, or to suggest some plan of using their cattle so as to make them profitable. San Francisco is said to be the only place in the State where there is a cash market for large herds. The following statement of the *Alta* newspaper of that city, shows that the price of cattle is ruinously low there:

The average cash price of neat cattle during the last year has been less than the value of the hide and tallow, estimating the amount of tallow to be that which they had in the spring previous to the time when they were slaughtered. The meat, therefore, has been a total loss to the ranchero. One owner of large herds has brought 2000 head of cattle to San Francisco, and netted only $5000 from them.

SPREADING MANURE FROM THE CART.—In the application of manure as a top-dressing for mowing lands, William Bacon writes to the *Country Gentleman* that he had much trouble in getting it spread evenly and seasonably, so long as he practiced the old plan of dumping it and spread the heaps afterwards. He now spreads it directly from the cart, and thus states the advantages of that mode:

We get it on the surface more evenly, and in the aggregate in a less amount of time, and for the third we claim that the sooner it is spread, the sooner the land gets the benefit of it. The only drawback that I know of is, that the team must stand still a little longer while spreading than while dumping, but as the team is kept for the benefit of the farm, there is probably no loss of time in that.

WHEN TO TRIM FRUIT TREES.—Our own teachings and practice are corroborated by Mr. J. T. Elliott, of Grand Rapids, Mich., in a communication to the *Prairie Farmer*, in which, after alluding to the fact that our New England fathers pruned in February and March, and that the early settlers of that part of the West followed their example, says:

Letting go any discussions of what their interests may be—and looking at home—all experience I hope will not be lost on us, and *that* experience, all points one way. *Prune while the wood is growing if you wish the scars to heal quick and sound. Say in* JUNE.

MICHIGAN PLASTER BEDS.—The existence of plaster in this State was discovered in 1833. No purer gypsum is found anywhere. The Grand Rapids Plaster Company represents capital to the amount of half a million of dollars. The supply of the plaster is inexhaustible, and the demand steadily increasing.

THERE is a world of beautiful meaning in the following rather liberal translation from Freville:

"As the clock strikes the hour, how often we say,
'Time flies!' when 'tis we that are passing away."

EXHAUSTION OF SOILS.

A most gloomy theory has been suggested by some writers, and readily adopted by a certain class of dismally disposed minds, to the effect that this good world of ours is gradually becoming uninhabitable by man; that it is growing old and decrepid, in the same sense as men and animals grow old; that every successive crop diminishes the capacity of the soil for production; that every breath taints and destroys forever a certain proportion of the pure air of heaven; that every body which dies and is buried poisons and contaminates so much of the earth's surface; and, finally, in a word, that the world if not otherwise destroyed, is eventually to shrivel up and die of old age; and many now think that they see unmistakable evidence that the poor old patient is already "struck o' death," and they believe that her final dissolution is just at hand.

Now we have no sympathy with any such dark-side view of the subject. We believe that the world is very good, and that man was made not only "to dress it and *keep* it," but also to improve it, to make it better. The plain of Shanghai, one of the most productive sections of the world, has been cultivated from time immemorial, and is as fruitful now as it ever was; and this remark we think will apply to the old world generally. Those sections which were remarkable for fertility as far back as history reaches, are still remarkably productive wherever they are well tilled.

A correspondent of the *Prairie Farmer* presents the bright side of this subject in a manner that we like; and it gives us pleasure to copy his article, which will be read by many farmers who are cultivating the "worn-out" soil of New England, —some of whom perhaps will let us know what they think of it.

Can the soil of such States as Illinois and those bordering upon it, be exhausted? I believe not. A succession of crops, of such a nature as to draw largely upon one or two of those ingredients which exist in but small quantities in any soil, may disqualify it temporarily for producing those particular crops in such quantities as to be profitable. Thus, if you grow corn, wheat, or both, alternately, in the same field, for many years, the phosphate of lime will be unreasonably drawn upon. The portions of it which natural causes had previously brought into a soluble state, will be used up. The land will refuse to give such crops as it had formerly. The land, in such a case, is not absolutely exhausted. What you can say of it with truth is, that so much of certain ingredients as had become soluble has been used up, that it is not good policy to tax the soil longer in the same direction, till time and natural causes shall have operated to bring other portions of these ingredients into a condition in which plants can absorb them.

A person accustomed to having his beef cooked, could not feed satisfactorily on raw beef; a fatted ox might be before him, and yet he might starve if some of the beef were not cooked. It is so with plants. In every good soil there is a portion of those ingredients on which plants depend, in a prepared state, and a much larger portion in an unprepared state. When, therefore, a grain crop has been long grown in a field, and the field refuses longer to produce it abundantly, it does not follow that this field is exhausted. The very ingredients on which that crop thrives, may be in the soil, and the only trouble may be that they are in an unprepared state, not soluble—not such that the plant can take them in. They are to the plant, as raw beef is to the man who has been used to having his beef cooked. Time, in such a case, is the remedy. Let there be a rotation of crops. Where a single crop has been growing for years, let other crops intervene; and while these are drawing upon different ingredient, natural causes will be operating to prepare the food required by the first.

It is not in the power of man to affect an exhaustion of any strong, deep soil, which shall be permanent, because natural causes are in operation to counteract the tendencies of even the worst farming. A bad farmer may, in the first half of his life, almost spoil a good farm for the last half of it; he may, in the whole of his life, injure it amazingly for his sons; but he cannot spoil it for his grandchildren. God has taken care to provide laws by which the effect of a bad cultivation is limited. But though we cannot spoil, for perpetuity, any soil naturally good, yet the loss occasioned by such cultivation and croppings as deteriorate the land is great, falling mainly on the man who does the mischief, and on his immediate successors, and less on those remotest from him. This is according to our notions of justice. The punishment falls first and mainly upon the one who does the wrong. Every kind of management that deteriorates the soil, is, (not in the long run, for it is a rather short *run*,) unprofitable; or, at least, is less profitable than a course which keeps it fully up to its original fertility or above it.

We do not like to hear persons talk about spoiling land. The Almighty has made the land in this great valley, such that not all human power combined, can spoil it. But the cultivation which diminishes its productiveness, spoils some part at least, of the prosperity of the farmer who practises it.

J. A. N.

POTATOES.—The first potatoes grown in this country were from seed brought from Ireland by the Scotch Irish who emigrated from the old country in 1718 and in 1719 settled in Londonderry, N. H. They were first raised in the garden of Nathaniel Walker, of Andover, and gradually, but slowly, found their way into general cultivation. They are first mentioned in Newbury in 1732; in Lynn in 1733. In 1737, Rev. Thomas Smith, of Portland, says, "there is not a peck of potatoes in the whole Eastern country." So late as 1750, if any person raised so large a quantity as five bushels, great was the inquiry among his neighbors as to how he could dispose of the enormous quantity.—*Newburyport Herald.*

☞ There were 10,803 births, 3071 marriages, and 8541 deaths in Connecticut in 1862, which is a less number of births and marriages than in 1861, and an increase in the mortality. One person who died was 109 years old.

QUITTOR IN THE HORSE'S FOOT.

Perhaps there is not one of our numerous readers that does not own a horse; at any rate, there is not one, we trust, that does not regard the horse as one of the most obedient and valuable servants of man; nor one who does feel interested in his welfare, and who would not be glad to promote his comfort in any possible way.

We are glad to observe increasing humanity toward the animals we rear and subject to our service, to know that they are better tended, loaded with more judgment, and, as a general thing, driven with more feeling and mercy, than they used to be. There are shameful exceptions, we admit, but the general practice toward them, is a better one.

As serviceable and *intelligent* animals, we know of none that will compare with the horse. The dog and the elephant may be taught to do certain special things that excite our wonder,—but a horse that has an apt and humane master, one who uses him in various kinds of employment, will exhibit, almost every day, evidences of his keen power of observation, memory, and general capacity. A book might be filled with interesting incidents, showing the high degree of intelligence that he possesses.

In some other respects, the horse resembles man. He is nervous or phlegmatic—high-spirited, or of a mild disposition—ambitious, full of pluck and mettle, or of an inert and passive temperament.

They seem also to be liable to similar diseases. They take cold, upon exposure, much as man does, and when sick, require a similar treatment. The disease mentioned above is much like the "felon," so common among us. That, we suppose, is occasioned by some bruise or prick of the part, which causes suppuration to take place near the bone, and the pus, being confined there, causes excruciating pain. "*Quittor*," in the foot

of the horse, is caused in the same way. It is a terrible disorder, and no one unacquainted with the structure of the horses' foot, can appreciate the dreadful pain which it occasions.

MAYHEW, in his admirable work on the horse, says "the cause of Quittor is *always* confined pus or matter, which, in its effort to escape, absorbs and forms sinuses [that is, a little cavity or abscess. Ed.] in various directions, within the sensitive substance of the hoof. Nature, after her own fashion, proceeds to cast off that which is without vitality; but the matter thus located cannot readily escape through the harsh material of the horse's coronet. It is confined and becomes corrupt, while the constant motion of the foot inclines the pus to take a downward direction. However, it is more difficult for pus to pierce the horny sole than to penetrate the coronet; so the effort is renewed above; numerous pipes or sinuses are thus formed; the fleshy sole is often underrun, and this mischief goes on until the coronet, which becomes of enormous size, at last yields to the increasing evil."

The "*coronet*," mentioned above, is the *upper* of three bones in the foot. The "coffin-bone" lies below, extending down toward the toe of the hoof, and the "navicular-bone" is on one side, opposite the junction of the other two bones.

Another cause of Quittor is pricking the sensitive part of the foot with a nail in shoeing, and another cause is "*corn*," as the horses' corn is nothing more than a bruise.

The leading sign of Quittor, before it breaks, is a large swelling at the coronet, attended with heat and excessive lameness.

No cure can be effected until an opening allows the pus to pass out, and this should be done at once by skilful hands.

HOW TO WATER PLANTS.—This is usually badly done. Water is poured upon the surface—enough, perhaps, to wet down an inch or two. The water washes the fine earth into the chinks and interstices, and there the plant stands, with dry or only soil moist below, but with a baked mass on the surface which shuts out warmth, air, and the moisture that would be derived from its free circulation. One of two methods should be adopted. Remove the surface earth and pour on water enough to reach the wet subsoil, and when the water has soaked in, replace the dry surface soil, to be moistened from below; or, make a hole as near the plant as you can without disturbing the roots, and fill this with water two or three times, and afterwards fill it with the dry earth first removed. At all events, when you water at all, water freely, and with the foot or a hoe throw a little dry earth over the surface as the water settles away. These are important hints. A few plants thus well cared for will yield more than three times the number carelessly treated.

DEPTH OF PLOUGHING.—A writer in the *Agricultural Review*, says: "Deep cultivation is inapplicable in the case of sandy soils, except when they rest upon a stiff subsoil, which, however, is rarely the case. If there be simply a thin stratum of stiff clay beneath the sandy soil, it should not always be broken through, as it may prevent the moisture passing away too rapidly as drainage. When friable soil rests on chalk, gravel or sand, deep ploughing should not be performed. We have often known manure to be ploughed in so deeply that its decomposition took place only after the lapse of several years. Manure, to be efficient, must be as close to the surface as possible. in order that the nourishment afforded by it may be within easy access of the rootlets of the plants."

LETTER FROM THE FARM.

Concord, July 9, 1863.

Gentlemen :—At last we have had a copious rain, which is still falling. It commenced some time last night, and must have continued to fall steadily for several hours by the appearances this morning. It has come none too soon. The grass has greatly felt the need of it, as whole clover fields present a mass of parched stems and dried blossoms. Grain has "headed out" prematurely, and will be lighter for the want of rain. Fields that were mowed, turned "brown and sere," and in some places the stubble has been killed. The Indian corn has not been much affected, nor the potatoes.

What a change has been wrought in the course of a few hours! The clouds spread themselves over us, like a curtain, and dropt their cool and refreshing moisture upon the famishing plants and dusty and thirsty earth, so that all things present a new aspect this morning.

"Matchless painter!—leaf and flower
All their faded hues reviving.
How the garden drinks the shower,
Life and loveliness deriving;
Grove and glade
All in sprightly pearls arrayed."

How wonderful are the operations of the *laws* of the Great and Incomprehensible Being who presides over them all! How full of wisdom, benevolence and love! When shall we learn to contemplate them more earnestly, and repose in them, with an unshaken and lively faith! *If we will*, we *can* reach that confident serenity of mind which *will not doubt*, though the earth be parched with burning heat, or swept by the tornado's resistless course. Let us, brother farmers, aim at this standard, and strive manfully to reach it. The *drought* has *its* work to accomplish, as well as the other agencies in nature,—and thus all work together for our good.

"Still the Lord doth all things well,
When His clouds with blessings swell,
And they break a brimming shell
On the air;
There the shower hath its charms
Sweet and welcome to the farms,
As they listen to its voice,
And rejoice!

In company with one of your correspondents, Dr. Joseph Reynolds, of this town,—a gentleman whose fondness for rural affairs has led him to many personal experiences on the farm, and to observe and write a good deal upon agricultural matters,—I had the pleasure, a few days since, of visiting the farm of Joseph A. Harwood, Esq., of Littleton, Mass. The day was hot and dusty, so that, upon arriving, the open doors and cool and extensive driveway through the barn, invited us at once to enter. Here we found chairs, upon which we rested and found enjoyment more grateful than could have been conferred by any refinement of the parlor. But these were the enjoyments of a *summer day*, and not those of the sweet retirement of a winter night, with friends and books and shelter from the wind or storm.

The barn is a new one, 100 feet long by 40 feet wide, boarded, clapboarded, and well finished in every respect. A cellar under the whole, has a substantial wall on three sides, laid in mortar, pointed, and the floor timbers supported by stone posts. The leanto is over the back side of the cellar, and the posts supporting the floor upon which the cattle stand, rest one end upon one of the longitudinal beams under the driveway, and the other end upon the cellar wall. This arrangement secures the proper slope of the leanto floor. The horse stalls and grain and harness rooms are in the end of the barn nearest the house, so that, excepting the leanto, all the rest of the spacious barn is devoted to the storing of hay and grain. I have rarely seen a barn so judiciously arranged. There were one or two other buildings for sheltering fodder or stock, so that the first question which arose to my mind was, "What system does Mr. Harwood pursue to secure crops to fill this space?" In the course of the afternoon's conversation I was enlightened on this point.

The farm consists of 215 acres. The land is broken into knolls and some pretty sharp gravelly hills, at whose base lie somewhat "extensive runs," or, more properly meadows. When he took the farm, some dozen years since, it had never received careful and sytematic cultivation. Stunted pines, ferns and huckleberry bushes crowned the gravelly knolls, while black alders, pipes and skunk cabbage, were each struggling for the mastery in the low grounds.

Now let us see what a steady application of *skill*, and *moderate means*, will accomplish. On one of these once forbidding knolls, I found a field of herds grass and clover extending a third of a mile in length, and upon the same field 600 peach trees; the ground was ploughed sufficiently wide to receive three rows of potatoes, which were kept clean from grass and weeds. The trees had been set only two or three years, had taken good hold of the soil and were in a thrifty condition. Some, that I measured, had grown a little more than two feet this season. I understood Mr. Harwood to say that if he could get even *one* good crop from these trees, they would make a profitable return.

On another gravelly knoll, and in plain sight of the house, was a fine orchard about ten or twelve years old, the seed for which Mr. H. planted. He raised the trees, and under his personal labor and care, presents an orchard which will not only be a matter of profit, but which is a credit to himself and his town. A narrow and beautiful

"run" between the two parts of the orchard, was covered with grass that would yield all of two tons of hay to the acre. This he had drained by ditching and using stones from the orchard land, and made it worth $200 per acre for agricultural purposes alone. He has another orchard, younger, which is very promising. Farther from the buildings he has reclaimed meadows, containing in all, perhaps, 25 to 40 acres, over a portion of which I passed and found a large, standing crop.

In his pastures I saw some excellent stock, including a fine bay mare, which he had just sold for $300. He wintered 27 horsekind last winter —one-half, or more, of which were boarders. Among his milch cows, were several Durhams, of superior merit. He declined to take $80, for one which I selected and should have been glad to send for.

By the time I had got round to my starting point, I thought I had learned the secret of his success,—and that it lies in these three things: namely:

1. Skill, or *knowing how.*
2. Steady application of labor.
3. The never-ceasing attention to the *making and preserving of manure!*

A brief glance shows that Mr. Harwood is *systematic.* Without this prime and indispensable quality, effort is idle. Skill or application avails little, where business, of any kind, is attempted without a plan. In the arrangement of the buildings, so far as he had gone, and the fields upon which he had entered to reclaim, Mr. H. seemed fully to appreciate the wants for which he was to provide. So far as he has gone, he has been thorough, and the building or reclaiming which he has done will last, with prudent care, for generations to come. Although the drought was pinching the crops on his dry knolls, and the clover heads were wilting in the scorching sun, yet we found a man and team occupied in supplying dry muck to the droppings in the cellar, and as there was little odor about the barn, concluded that it was a part of the system to supply it regularly and

"Make *Muck* the mother of the meal chest."

What Mr. Harwood has done, may be accomplished by thousands. His farm possesses no uncommon advantages over many others, and yet, with moderate means, and almost before reaching the prime of life, he has placed his farm in a condition which comparatively few reach, after a whole life of confused and uncertain labor, from their owners. To be skilful, men must *read, observe* and *think.* It was evident that my host had done all these. Evidences of this were not wanting in the pleasant parlor, or around the social table, where our conversation was continued, and in which the ladies took an intelligent part.

Returning in the cool and refreshing twilight of a bright and hot day, I was surprised to pass several quite extensive *peach orchards* on the fertile hill lands of Littleton and Boxboro'. The crop in those towns must be quite large in a fruitful year.

Descending from the peak of the aspiring town of Boxboro', I soon came to the forest that is now being cut, and which lies in that town. It belonged to the estate of Mr. HENDERSON INCHES, of Boston. There are something more than 500 acres. The parties who purchased it, pay $36,000. They sell most of the ship timber to the government, to be used at the Navy Yard at Charlestown. Railroad ties and much of the firewood will be taken by the Fitchburg Railroad.

One party has built a saw mill moved by a 25 horse power steam engine, with a circular saw, and is cutting the prime timber at a fixed price per thousand. They are cutting about 6000 feet per day. Those cutting ship timber dig around the trees and take out the roots attached to the stumps for knees. They had found trees more than 200 years old. Five quite large buildings are erected on the ground for the accommodation of the workmen, which, with the ponderous wheels, truck, and heavy horses from the city, give the place an appearance of bustling activity.

I am truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

For the New England Farmer.

REMARKS ON CLIMATE.

The human race have looked upon the lakes and rivers of the earth, and seen the majestic streams as they roll onward to the ocean, in all their majesty and might; have seen the swelling floods spread desolation o'er the land, and yet, have seldom asked the question, whence comes this vast amount of water, to supply these great rivers far in the interior of continents, thousands of miles from the ocean? Water always runs down hill, and yet it takes its rise in some of the most elevated parts of the earth and flows downward to the ocean. The question is, how are these mighty fountains supplied, which are ever sending forth their torrents from the mountain side, high up above the fountains of the deep? Water never runs up hill, and therefore cannot flow back in any underground courses, to arrive at those elevated points.

There are some curious properties of water which it may be proper to explain, before trying to answer so stupendous a question. Water possesses the power of expansion by both heat and cold. Who has not seen the effects of its inconceivable power, in crumbling the giant rock from the mountain's side, and splitting it into fragments? Let a body of water stand in a strong vessel and freeze; before it becomes solid, its expansive power will throw up a miniature mountain in the centre, and allow the pent up waters below to escape. Water, it is said, attains its smallest dimensions in bulk, at a temperature of about 38°. Above or below this, it expands. Every-

body knows the expansive power of water when converted into steam, as it drives the locomotive over the iron road, or the huge vessel across the mighty deep. There is a power in the simple elements of water, far above the comprehension of man, and it is this expansive force that carries the water to the mountain tops. A great majority of the human race cannot yet comprehend this mighty power. They see the torrent roll down the mountain's side, seeking a lower level, without asking how it assumed its high position. Steam is the motive power for carrying water over the land, and steam is produced at nearly all temperatures, but the higher the temperature, the greater the pressure. In the language of Prof. Espy, 'all storms are produced by steam power." Silent and unseen are the workings of nature, and yet her laboratory is so vast that the results are tremendous. Were it not for the expansive power of water and its affinity for air, our earth would be a treeless and barren desert. No rivers would ever flow to fertilize the earth, no lakes could exist above the level of the ocean, no clouds obscure the god of day, or bring rain to the thirsty earth. But in the wise economy of nature, all these things are provided for. Air and water possess some of the same elements, and can mingle in one common mass. The warmer parts of earth require more water to fertilize the soil, than the colder parts, and they receive more. The polar lands require but little moisture, and they receive but little.

The law regulating the moisture of earth, would indicate the greatest amount of rain at the equator, and the least at the poles; but another theory steps in and tells us that water is expansible by cold as well as heat, and that steam is produced by the expansion, from the temperature of 38° both upward and downward, consequently the least amount of rain would fall in that latitude where the mean yearly temperature is about 38°, while the amount would increase from that point to the equator, and from that point, though perhaps imperceptably, to the pole. But this line is so variable with the seasons, that no such line actually exists, except as theory. The point of 38° temperature is probably about 52° latitude, while at the equator it is in the vicinity of 90°, and the temperature sinks at the pole to about zero. This would give a trifle more at the pole than at 52° north latitude, while the amount at the equator would be enormous. But local causes operate to distribute the rain so unequally, that it is impossible to give rules which will apply to all parts of the earth, without a vast many exceptions. In the peninsula of Hindostan, the amount of rain is enormous, perhaps greater than in any other part of the world; yet in South America, it is but little less. In the vicinity of the ocean, as a general rule, more rain falls than in the interior of continents, yet the evaporation is much greater, for evaporation carries it into the interior, where another distribution takes place.

All parts of the earth are watered according to the necessities of the soil, except those places which are affected by local causes, such as the deserts of both continents, for if the soil does not receive sufficient moisture, it soon becomes partially or wholly a desert. No part of the earth becomes a desert except from local causes, as far as moisture is concerned. The want of heat as at the poles, and, in some of the highest mountains, makes these places an icy desert, with a temperature much too low to produce vegetation. We know Dr. Kane speaks of snow and rain in the Arctic regions, for such is necessary to supply the vast amount of ice and river water in those regions. Were this not so, the entire country would be a barren waste of earth, far too cold to sustain animal life, for it is a well known fact that humidity lessens the extremes of heat and cold. In the deserts, the heat is unalterable, yet were the amount of moisture increased to the amount due to latitude, the heat would also decrease; and were not the Arctic regions well supplied with moisture, the cold would be far more intolerable than it is at present. Perhaps some may say, this is a strange doctrine, that a vast body of ice will mitigate the cold, but it is even so. I know not what degree of cold, water is capable of receiving at the surface, but the heat in the ocean, increases downward, leaving the coldest sheeted water at the top, which is much warmer even when covered with ice than the land.

Dr. Kane remarks: "The temperature on the poles was always somewhat higher than at the island, the difference being due, as I suppose, to the heat conducted by the sea-water, which was at a temperature of 29° above zero, the suspended instruments being affected by radiation."

This was on the 17th of January, 1854. On another page, he says: "Upon the ice floes, commencing with a surface temperature of 30° below zero, I found at two feet deep a temperature of 8°, and at four feet, 2° above zero, and at eight feet, 26° above zero. This was in midwinter, on the largest floe in the open way off Cape Stafford."

Thus the temperature increases rapidly as we descend into solid ice, being 56° warmer eight feet below the surface in solid ice than at the surface. At this rate, one foot more will carry it above the freezing point, where ice would cease. The ice it appears is not continuous, but is broken into large fields, with many flaws and holes for the escape of steam from below. This vapor freezes quickly and descends again in the form of snow, keeping the ground always covered with snow and ice, which in summer thaws and flows off in rivers to the ocean, thus keeping up a balance of the watery element in these cold and inclement lands.

If water did not expand in freezing, ice would be formed at the bottom, or at any rate, would sink to the bottom, so that no ice would ever float on the surface of water, because it would be heavier than the water below, and the polar regions if frozen at all, would naturally freeze at the bottom, or the ice would sink to the bottom, so that the surface would be the last to freeze.

In most parts of the earth there is a surplus of water, which is continually carried off by rivers to the ocean, which keeps up this balance of the watery element. All this water is brought from the ocean in the form of vapor, and scattered over the land by the winds. There is, so to speak, an ocean of water in the form of vapor suspended in the atmosphere, ready at the call of the thirsty earth to fulfil its mission. Then from what source does our continent draw its supply, to feed the father of rivers and the mighty lakes, and all the minor streams which are continually rolling their tide of waters back to the ocean, carrying off a portion of earth, and leaving it in the form of sed-

iment at the mouths of rivers, thus filling up a portion of the bed of the ocean? There are but two primary sources, from which the water comes to that portion of our continent east of the Rocky Mountains. The main reservoir is the Gulf of Mexico, and the principal agent of communication is the trade winds of the tropics. This gulf of tropical water is much warmer than the two oceans in the same latitude, for it is the recipient of the tropical current from the west of Africa; and this water being excessively warm, produces a large amount of vapor which is held suspended in the air. The trade winds are deflected from their natural course, first by the continent of South America and its northern ranges of mountains, then by the Cordilleras of Mexico and the Rocky Mountains, its whole volume is carried into the broad valley of the Mississippi, between the Rocky Mountains and the Alleghany range, charged with the vapor of the gulf. It carries water to supply this great valley with its huge rivers and lakes, and an enormous surplus to roll back into the ocean and gulf, from which it was taken. This water being warm, retains its warmth, and gives the valley a climate, at times, warmer than is due to latitude. It passes up the valley, and a portion is carried eastward to supply the great lakes and rivers on the slope of the Alleghany range, and is frequently carried beyond these mountains into the Atlantic States, where it flows into the broad Atlantic. Whenever south winds prevail, this vapor passes up the valley, giving it a climate much warmer than is due to latitude. Another source from which this valley receives moisture, is the Arctic Ocean, whose northern winds and shifting storms are frequently felt during the cold months of winter. Yet at any time, this valley is liable to sudden changes, as the wind comes from its sources in the north or south. East of this valley the supply of rain comes principally from the broad Atlantic, driven by the south wind among the valleys and mountains of New England and the States east of the Alleghany range. This vapor is carried far away into the mountain valleys, and by mingling with the westerly current is scattered over the eastern slope of these mountains, and a portion of it is carried back to the ocean to descend in the form of rain on its waters. The surplus rolls off in the form of rivers, to the ocean, and thus the equilibrium is kept up all over the continent. West of the Rocky Mountains, the supply comes from the Pacific, in the regular belt of westerly winds. It is a well known fact that, in California, there is a surplus quantity of rain in the winter, and a deficiency in the summer. This is owing to that great law of nature, which produces summer and winter by the turning of each part of the earth alternately to the sun. In the winter, when the sun passes directly over Rio Janeiro, its rays fall obliquely on our continent. This draws the northern belts of air from their summer position; bringing down the westerly belt on the shores of California, it must have a tendency to bring a large amount of vapor from the Pacific, and convey it up the slopes of those ranges of mountains on the coast, and over them into the great basin west of the Rocky Mountains. But owing to the heights of the Rocky Mountains, the vapor is all deposited on the western side, which gives the land an undue quantity of moisture. In the summer, when the sun rolls its mighty course over the Gulf of Mexico, the westerly current is driven northward beyond the latitude of California, and the trade wind assumes its northern limit, it brings California into the belt of calms and conflicting winds, frequently from the east, which can bring little or no rain on the thirsty soil of that region. Thus, in summer, California suffers for want of rain, while Russian America coming in the belt of westerly winds, is well supplied. The western shore of Mexico is much like the climate of California. Perhaps the most singular region in America is the Great Salt Lake Valley, situated in the midst of mighty ranges of mountains, where there is no communication of its waters with the ocean. But splendid rivers flow into Great Salt Lake, without increasing its volume of water, and other lakes that are scattered through this valley, receive tributaries of considerable size, yet there is no way for these waters to pass off to the ocean. Then why do not the waters rise in the lakes? The reason is obvious. This valley is surrounded by lofty mountains over which no vapor passes, consequently no water comes from the ocean to fertilize the soil. This is a miniature world. It receives no vapor from distant lands and imparts none. Its secret is, its evaporation and precipitation balance each other. All the water that rises in vapor falls again in the valley, and flows back into these lakes. The weather may be wet or dry; the ground may be saturated with water, or parched with drought, and the lakes remain nearly the same. The rivers may be swollen to their utmost height, or be at low water mark, and the lakes are still the same; for all that is distributed over the land is taken from the lakes, and returns immediately to the lakes. All this water existed there at the time of its last upheaval, and will remain there as long as that part of the earth remains in its present form. It will fertilize the soil and fill the lakes alternately through all time. But why is there such a surplus quantity of salt in this valley, as to make the water of the lakes much softer than the ocean? The earth is impregnated with salt everywhere to a great extent, and the water in running over the land dissolves the salt and carries it to the lakes, as other rivers carry it to the ocean; and as ages on ages roll away, this solution of salt is continually carried into these lakes, and as the water evaporates, it leaves the salt behind, for salt never evaporates, for if it did, it would descend in rain water, where it is never found. Thus all the saline substances that are carried into these lakes remain there, till the water has received all the salt it will hold in solution, and when it has received more than it can hold in solution, it will crystalize in the form of salt. Winds and hurricanes may pass over this valley, but they are confined within its mountain walls, and never pass beyond. With the Rocky Mountains on the east, and the Sierra Nevada on the west, and vast ranges of broken and lofty hills on the north and south, it is shut out from all the rest of the world, and is a little world of itself.

South-west of this valley, and separated from it by lofty mountains, we find a sandy desert, made so by the high peaks of the Sierra Nevada on the west, which prevent all vapor from passing over their summits from the Pacific. It is cut off from the valley of the Colorado by lofty hills, which act as a wall between this desert and the tributa-

ries of the Colorado. The westerly current passes over the region of Santa Barbara, and south of the junction of the Sierra Nevada and Coast Mountains, and up the Gulf of California into the great valley of the Colorado, giving that valley a beautiful climate, with perhaps a surplus of rain in the winter, and a deficiency in the summer. This valley extends up into the mountain region, and the river heads in about latitude 43°, passing through the east part of Utah, between the Wahsatch and the Rocky Mountains, and through the west part of the territory of New Mexico into the Gulf of California. It heads near Fremont's Peak in the eastern part of Oregon, and near the source of Lewis's River, one of the principal branches of the Columbia. These two rivers with the Pacific Ocean almost enclose the country comprising Oregon, Utah and California, leaving the Rocky Mountains on the east to intercept the vapor passing over them into the valley of the Mississippi, thus dividing the continent and giving a different climate on each side.

The eastern slope of the Rocky Mountains contains some singular meteorological features. A spur of the Rocky Mountains rises a little to the mouth of Fort Laramie, in about latitude 43° and longitude 28° west from Washington, and passes off to the north coast, and ends in the vicinity of the Missouri River in latitude 47°, leaving a large territory open to the north, and enclosed on all other sides by lofty mountains. In this great basin, the Missouri River takes its rise, and receives almost innumerable tributaries. The country between this and the Arctic Ocean is well watered, but not mountainous. It abounds in lakes and large rivers for its latitude. The northwesterly current of air brings down the waters of the polar basin on the eastern slopes of the Rocky Mountains, as far south as the basin of the Black Hills. Here it meets with another current from the south-east, flowing up from the Gulf of Mexico through the valley of the Mississippi and the Missouri, into this same basin. Here the currents of air from the north and south meet, charged with the waters of two hemispheres. Here the cold and warm currents of air mingle together, and deposit their moisture on the earth, to feed the branches of this mighty river, which spread themselves in all directions, and take their rise in the lofty hills that surround this valley. The greatest tributaries flow from the south and west, in consequence of the attraction of the hills for moisture, while the lesser rivers flow from the plain on the north. A little north of this valley the Saskatchewan heads in the Rocky Mountains, and flows eastward into Winnipeg Lake, and from that through Nelson's River into Hudson's Bay. A little further north, the Athabasca takes its rise in the Rocky Mountains. and flows northward through Slave Lake and Mackenzie's River, into the Polar Sea. All waters north of the head of the Missouri, flow into the Polar basin vnd the Missouri, and all south flow into the Gulf of Mexico. Here is a ridge of higher land extending across the continent from the Gulf of St. Lawrence to the Rocky Mountains, but is not elevated sufficiently to form mountains. On the north of this ridge the climate is cold, while on the south it is warm.

South of the Black Hills lies the great American Desert, stretched along on the plains east of the Rocky Mountains, where the currents of air from the Gulf of Mexico never reach, and consequently little or no rain falls. These currents of air are much inclined to follow the river valleys. in consequence of the depression, especially when they assume a direction nearly north and south. Thus the wind blows up the Rio Grande into the valleys of the Rocky Mountains, giving rise not only to that river, but to the various sources of the Arkansas, which flow down across this sandy desert into the valley of the Mississippi.

There is but a small portion of North America barren for want of moisture. The northern part is probably barren for want of heat. Having a northern slope, the rays of the sun fall more obliquely on the soil, giving it less heat than a southern slope in the same latitude, while the depression of the earth at the poles increases the obliquity. There is no part of the earth over which is scattered such vast bodies of fresh water as in North America, and though much of its climate is severe, yet it is well calculated to reward the industry of man.

As regards the watery element, South America is perhaps the most remarkable portion of the earth. The lofty range of the Andes skirts the shores of the Pacific through its whole length, giving character to the whole continent. The whole territory east of the Andes, consists of vast plains of extreme fertility, and is watered by innumerable rivers. The Amazon, the largest river in the world, drains a territory of more than two millions of square miles, and empties its vast volume of water into the Atlantic on the equator. It takes its rise in the Andes within a few miles of the Pacific coast, and runs in an easterly direction across the whole continent. On the north of this basin, and a little north of the equator, is a range of mountains, placed there in the economy of nature, to guide a portion of the trade winds into this valley, with the vast accumulations of vapor from the hot regions of the Atlantic. The trade winds carry the vapor across these vast plains, where it condenses and returns to earth, and deposits the last of its vapor upon the eastern slopes of the Andes, to feed the little branches of this majestic river. These mountains intercept all communication of vapor with the Pacific, so that the whole volume of water must roll back to the Atlantic, through a country having the most magnificent growth of vegetation of any part of the world. Here the giant palm, the lord of the vegetable tribes, attains its greatest perfection. Here the savage lords of the brute creation bear undisputed rule.

D. Buckland.

EXTRACTS AND REPLIES.

STRAWBERRIES GROWING ON A TREE.

As I was at work in the woods, last January, cutting ship timber, I felled a large maple tree; and in the top, forty feet from the ground, I found a little bed of strawberry vines; five thrifty stalks, which were as green as they are in summer. Probably they would have born fruit this season, had they not been disturbed. It was quite a curiosity to me, to find a patch of strawberries growing so high on a tree. The seeds may have been dropped there by the birds, or carried up by mice. They grew where a large limb had been broken off, years before, that had rotted away, and made the soil on which they grew. I preserved the plants, and set them in my garden, this spring. Some of them are growing finely, and another year, I may have a new variety of strawberries,—possibly, a "Hovey's Seedling."

A. L. W.

Hope, Me., July 6, 1863.

LADIES' DEPARTMENT.

KEEPING COMPANY WITH FLOWERS.

There is much nonsensical prattle about flowers, so there is about the sky and the stars, about mountain and ocean, about thunder and lightning. But the prattle only demonstrates its own folly and does not harm the beauty and glory with which it trifles. The glorious and beautiful in nature may perhaps be worn threadbare as illustrations, but as realities they are unchanged and unchangeable. They are forever fresh, forever attractive. This is the season of flowers, they abound everywhere, in city and country, in field and garden, in the woods and by the wayside; they are wild and domesticated, cultivated and spontaneous; they are of all colors, of all odors, of all shapes, of all sizes; and just now almost everybody can have plenty of them. But their abundance and ubiquity do not diminish the inherent sweetness or loveliness of the least of them. The children may gather them with transport or crush them with recklessness; they may be allowed to wither on the parlor mantles and thence be thrown into the streets, but flowers are still flowers, they are heaven's expression of beauty and grace, and the eye, the mind, and the heart of man respond to their silent speech.

But what do we mean by keeping company with flowers? Who has not hummed or whistled a tune to get rid of the feeling of solitude? What friend of tobacco has not professed to find company, a sort of companion in his pipe, or segar, or worse still, his quid? How, in hours of loneliness, do the keys of the piano or the strings of the violin seem to grow into a sort of disguised person, and enter into mysterious relieving converse with us. But of all companions not personal, none are so charming as flowers. Birds and dogs, and all the lower animal tribes, must give way. But the flowers we ask as our companions are not dead ones, nay, not even plucked flowers. Once severed from their connection with the soil, their poetic personality passes away with their vitality, we regard them now as having suffered violence, and as doomed to die before their time. Their fragrance may be intense and delightful, but there is little more in it to stimulate the fancy than in a vial of essence. With the living flower we feel we have communed as with a fellow creature, we have touched it and it has nodded and trembled in answer, but we have left it unharmed and can hope to visit it again with renewed pleasure from our former interview.

This delicate sense of the flower's life may be poetical, but it is real. Who that loves flowers has not felt it? With what anxiety, a bright anxiety to be seen, have we watched the growth of the tender plant; if any disease threatened, or actually invaded it, what solicitude we have felt, with what care we sought remedies, and with what tender delicacy applied them! And when the budding time came, with what a quiet, real, unselfish joy we have seen the tiny thing take shape, and watched it grow, and color, and swell, and finally open. And then if, during the time of its glory, anything happens to its stem—if, for instance, it should be broken, how true a sorrow follows, and what a wish for healing and restoring skill. Indeed, it was only the other day that we saw a man, full of this gentle pity for wounded flowers, patiently laboring to set the broken stalk of a verbena. It repaid him by living, and the blossom kept its lustre while the stem firmly knit at the point of fracture.

There resides in living flowers a latent charity, a power, that is, to evolve this "bond of perfectness" from the sterile heart. When a man wants flowers, it is not to shut them up, but to place them in the light, to give them a conspicuous place. He is anxious that his pleasure should not be solitary. In his bargains he may desire no partner, in his inventions which are to bring him lucre he may shut himself up in the dark until they are completed, and may only shout his *Eureka* after he has fenced in his profits with a patent; but his flowers open his heart, he wants rich and poor, aye, every living thing, to see them.

Hence, it is always a sad work to be obliged, by the approach of winter, to take into the house, plants that cannot endure frost. It is like bringing in the children from their innocent and beautiful plays. But we avenge ourselves as best we may by placing our pets in the windows, or better still, when we have the means, in a conservatory, a house of glass, through which the sun may enter, and from which a good furnace will exclude the frost. Yet, after all, flowers are most at home out of the house, out of any and every house. The sky is the roof for the children of the sun. And toward flowers under cover we are apt to have a feeling near akin to that with which we regard a caged bird. The bird, perhaps, is beautiful, his note is sweet, he may be happy, but we more than suspect he would feel better if he could fly a little farther, and if he did not occasionally strike his wings against the delicate but hard iron. Our conscience is apt to trouble us, with the feeling that with all its gilding the cage is a prison, and that, after all, the bird's song may for him be a dirge. So is it with caged flowers; they are incarcerated, living by the grate or furnace instead of having the whole glorious atmosphere for its windows.

It is not needful that a man should be a botanist to find happy company in flowers. Their beauty is not gotten at by scientific prying.

> "Physician, art thou? One, all eyes;
> Philosopher! a fingering slave,
> One that would peep and botanise
> Upon his mother's grave."

Their glory is not in the pith of the dead stalk, nor in the shreds of dissected bloom, but in the symmetrical, radiant whole. It is in this form and aspect they win our love. Wordsworth has a little poem on "Loving and Liking," in which he wisely and charmingly teaches us that we are not to talk of loving the objects of our appetites. Even a strawberry, beautiful as it is on the vine, where, too, it may be loved, when once it comes on the table is only to be liked. In this light, it seems to us, flowers that have been pulled are to be regarded; this is the florist's attachment to flowers. Genuine, elevating, refining love for flowers must find them living, and out of doors, and must regard them only as creatures of beauty and therefore a joy forever.

LOVE is to domestic life what butter is to bread—it possesses little nourishment in itself, but it gives substantials a grand relish, without which they would be hard to swallow.

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CATTLE MARKETS FOR JULY.

The following is a summary of the reports for the four weeks ending July 15, 1863:

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Fat Hogs.*	*Veals.*
June 25.....	1254	4217	500	400	800
July 1.....	1708	4670	600	800	800
" 8.....	1519	2214	200	500	700
" 15.....	938	4956	800	600	550
Total.....	5419	16,057	2100	2300	2850

The following table exhibits the number of cattle and sheep from each State for the last four weeks, and for the corresponding four weeks last year; also the total number since the first of January, of each year:

	THIS YEAR.		LAST YEAR.	
	Cattle.	*Sheep.*	*Cattle.*	*Sheep.*
Maine.....	357	3236	20	3649
New Hampshire.....	586	2243	182	1920
Vermont.....	937	5796	1426	7256
Massachusetts.....	92	2055	21	1935
Northern New York.....	92	1748	79	1332
Canada.....	24	141	126	591
Western States.....	3331	838	4007	383
Total, last four weeks.....	5,419	16,057	5,561	17,066
Total, since Jan. 1, (29 w'ks,)	38,936	82,476	38,056	83,899

PRICES.

	June 25.	*July* 1.	*July* 8.	*July* 15.
Beef, 1st, 2d, 3d qual..	7½@9	6½@8½	5½@8½	5½@8½
" a few extra.....	9½@9½	@9	8½@9	8½@9
Sheep, ℔ lb.....	3½@6	3½@6	3 @5	3 @5½
Lambs, each.....	$2 @	$2½@4½	$3 @5	$2½@4½
Swine, stores, w'sale...	5½@6½	5 @6½	5 @6	5 @6
" " retail..	6 @7½	5½@7½	5 @7	6 @7
Hides, ℔ lb.....	...8 @8½	8 @8½	8 @8½	8 @8½
Pelts, sheep & lambs..	40@90	40@90	40@$1	50@$1
Tallow, ℔ lb.....	8 @8½	8 @8½	8 @8½	8 @8½

Remarks.—Prices for most kinds of stock at this market have had a downward tendency during the past four weeks, excepting, perhaps, at the last market, when beef cattle and good mutton sheep sold rather better, owing mainly to the small number of the right kind of each, at market, while for lambs, especially those of ordinary quality, of which there was a large supply, the last market was the lowest of the season.

The most noticeable event of the last month in market affairs is the change of time, by which one day is saved. Two days are all that have ever been considered necessary for the sale of the live stock for the supply of this market, and for years past this business has been assigned to Wednesday and Thursday. But as the arrival of one train after another was altered from Wednesday to Tuesday, by those who wished to be ahead of others, Tuesday gradually became a market day in fact, although not nominally so. During the last half year especially most of the sales have been effected Tuesday, while the closing up of business has been allowed to drag through Wednesday and Thursday, to the great inconvenience of drovers who needed the time for home operations. By general consent, therefore, Thursday has been dropped, and the business is now done in two days—at Cambridge Tuesday forenoon, and at Brighton Tuesday afternoon and Wednesday.

Wednesday, July 15th, will be remembered by many of the marketmen on account of the appearance which Market Square in Boston presented, not only in the morning, but throughout the day. Cannons stood on the corners ready to sweep every street, guards were walking to and fro, arms were stacked upon the sidewalk, Faneuil Hall was filled with soldiers, and the curious passer-by who paused to look at the broken windows of the gun-stores was admonished to "keep moving." Purchasers hesitated about buying, and business generally was very much interrupted. At Brighton, as good luck for the drovers would have it, there was but little stock unsold, and no fresh arrivals. The few cattle that remained were cleaned out during the day, and many expressions of pleasure with the Wednesday arrangement were heard from both seller and buyer.

Sales of Cattle and Sheep.

The following is from our report of sales, July 15:

A. N. Monroe sold 102 Illinois steers as follows:—3, weighing together 2030 lbs., at 8½c, ½ sk.; 3 others, 3630 lbs., 8½c, 35 sk.; 59, averaging 1240 lbs., 9c, 29 sk.; 37 averaging 1125 lbs., for 9c, ½ sk. Also, 56 Michigan oxen as follows:—one pair, 2825 lbs., at 9c, 28 sk.; one pair, 2740 lbs., 9c, 30 sk.; 3, averaging 1213 lbs., at 8¾c, 30 sk.; 4, of 5240 lbs, at 9c, 32 sk.; 17, averaging 1162 lbs., at 7½c, 37 sk.; 3, of 1240 lbs., at 8½c, 30 sk.; 8 others, 1175 lbs. each, 8c, 30 sk.; a nice pair, 3380 lbs., 9c, 30 sk.; 4, of 1160 lbs. each, 7½c, 35 sk.; and 10, average live weight 1050 lbs.. at 7¼c, 30 sk.

Wm. Scollans sold 63 Illinois steers, for Messrs. White & Otis as follows:—32 average live weight 1282 lbs. each, for 8¾c, 30 sk.; 22 weighing 1180 lbs. each, at 8½c, ½ sk.; 6 averaging 1130 lbs., at 8c., ½ sk.; 3 of 1050 lbs. each at 8c, 35 ℔ ct. sk.

Mr. Scollans also sold for Scollans & Jordan 76 Ohio steers as follows:—38 averaging 1340 lbs., for 9c, 31 sk.; 24 averaging 1374 lbs., for 9c, 30 sk.; one pair, 2565 lbs., 9c, 29 sk.; 6, gross live weight, 8810 lbs., for 8½c, ½ sk.; and 6 others, 7090 lbs., for 8½c, 32 sk.

E. Wheeler sold 8 oxen to Saunders & Hartwell, to dress about 1000 lbs. each, 4 at 8c, and 4 at 8½c ℔ lb., and 10 young cattle at 7c ℔ lb., and 3 cows, laid at 650 lbs., for $142.

C. H. Potter sold an extra pair of oxen to Mr. Rice, of the Quincy Market, which were laid to dress about 2300 lbs. These oxen, though not remarkable for size, were very nice, thrifty and well to-do bullocks, and belong to that class about which we like to make inquiry as to their nativity, &c. This pair we are informed, were fed by Richard Messer, of New London, N. H. We hope that the tip-top price of this market—9c ℔ lb.—will pay for the meal which it took to thicken up their flanks.

Gen. James Morse sold one pair of oxen to O. Lynde at 8¼c ℔ lb.; 2 fat cows for $100, or 7¼c ℔ lb.; 2 weighing 1950 lbs., for 6¾c, 35 sk.; 3 cows and one two-year-old heifer weighing together 3150 lbs., at 6c, 40 ℔ cent. off for offal; which cows he complained had shrunk ruinously from home weight.

Ruggles & Hastings sold to Mr. Allison one pair of well-fatted oxen at 9c ℔ lb.; one pair to H. Zoller for $132, or 8c ℔ lb., and another pair to Mr. Chapin, at 8c, 2 cows at 6½c, 2 others, and very good ones, weighing 1945 lb. for 6¾c, 37 sk.; and 3 steers at 7½c.

Hosea Gray sold to Mr. Allison a pair of oxen that he has been feeding for some time past on his farm in Lancaster, N H., for 8¼c ℔ lb., and five cattle to H. Zoller, at 7c ℔ lb.

N. G. Batchelder sold 2 oxen, laid at 2100 lbs. dressed, for 8½c; 4 steers for 7½ and 4 for 8c ℔ lb.

E. Stone sold 5 cows at 7c, and 4 steers at 7½c. He was offering three two-year-olds for $65, but we thought by his talk that $20 each would be a dangerous offer for one to make who did not wish to buy them.

G. W. Barker sold a good bunch of old sheep, full 100 lbs. each, for $5 ℔ head, and a bunch of good lambs at $4 each; Gen. J. Morse sold 24 sheep for $4,50; E. Wheeler 70 good sheep at 5c ℔ lb. One lot of New Hampshire sheep was sold for $3,50 each. The lambs from Maine were sold from $2,75 to $3,75.